

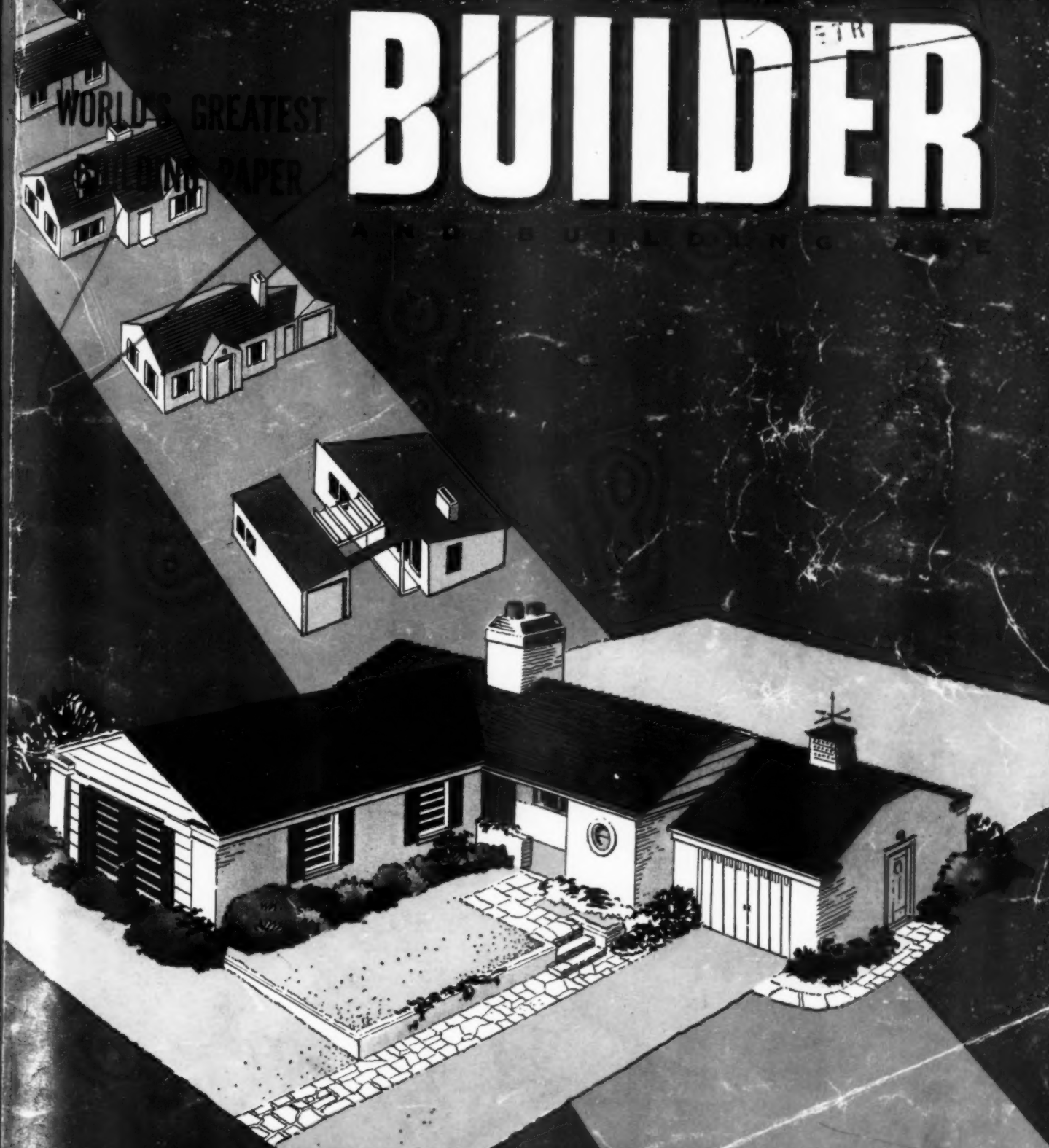
TECHNOLOGY DEPT.

AMERICAN BUILDER

OCTOBER 1946
PRICE 35 CENTS

WORLD'S GREATEST
BUILDING PAPER

AND BUILDING ART



Building Progress 1926-1946

It's what's *Inside* that Counts!



STREAMLINED beauty is practical design in a car. But it pays to remember it's what's *inside* the hood that matters.

It's what's *inside* that counts with quality building products, too. Hidden, *inside* values the eye seldom sees. That's why building-wise people insist on Celotex Building and Insulating Products.

They know the raw materials that go into Celotex are the best that nature can grow and money can buy.

And rigid production controls all along the line guarantee uniformly high quality of every product bearing the Celotex name.

Tireless laboratory research perfects materials and methods still *more*... helps to maintain Celotex leadership year after year.

These, plus more than a quarter of a century of building materials "know how," are the invaluable ingredients in every Celotex product.

They make a big difference in performance... in long life and low cost maintenance. A difference that has proved its value on hundreds of thousands of building jobs of every kind.

There aren't enough of these famous Celotex products to go around *now*—but steadily increasing production is making Celotex materials gradually available in larger quantities.

Building Board	Celo-Rok Sheathing and Wallboard
Interior Finish Boards	Celo-Rok Anchor Lath and Plaster
Celo-Siding	Cemesto Flexcell
Rock Wool Insulation	Triple Sealed Shingles

CELOTEX

REG. U.S. PAT. OFF.

BUILDING PRODUCTS

THE CELOTEX CORPORATION • CHICAGO 3, ILLINOIS

Published monthly by Shamone-Boardman Publishing Corporation, 105 W. Adams St., Chicago 3, Ill. Subscription price, United States, Possessions and Canada: 1 year, \$2.00; 3 years, \$5.00. Foreign countries: 1 year, \$4.00; 3 years, \$10.00. Single copies 35 cents. Entered as second-class matter Oct. 11, 1930, at the Post Office at Chicago, Ill., under the act of March 3, 1879, with additional entry as second-class matter at Mount Morris, Illinois. Address communications to 105 W. Adams St., Chicago 3, Ill.

TURN ON THE SUNLIGHT

... for a kitchen that sells!

Watch a woman's eyes light up when you show her that you've planned for a brighter, better-ventilated kitchen—her workroom.

"How unusually bright and cheerful!" she says.

The room sparkles because its Fenestra Steel Casements admit more light—its glass areas are larger than those of ordinary windows of the same over-all size.

You ask her if she thinks she can open the window that's the most difficult of all windows in a house to open—the one over the kitchen sink. She's doubtful; but when you show her how, she reaches over and opens and closes the Fenestra Steel Casement with just the touch of her finger—again and again. She observes how a swing leaf reaches out and scoops the breezes into the room.

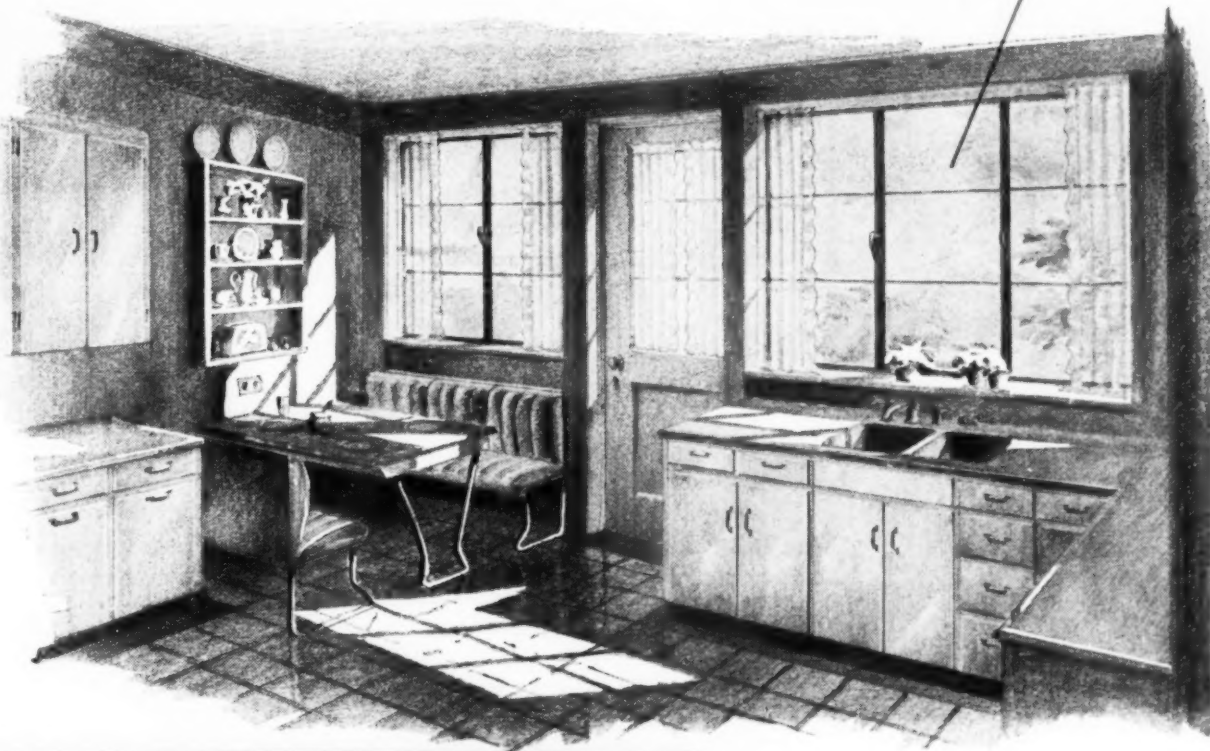
Now she knows she can always rid the kitchen

of heat, steam, cooking odors, with scarcely an effort. For Fenestra Steel Casements never swell, warp, stick or splinter.

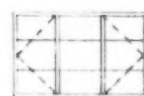
"But what about screens for summer?" she may ask.

You show her how a Fenestra All-Metal Screen is attached (or removed) in a jiffy, safely, on the inside; how tight it fits; and how it never need be marked or numbered when removed for storage. It's perfectly interchangeable with other Fenestra Screens covering openings of the same size.

Yes, Fenestra Steel Casements stamp kitchens—and every room in the house—*modern!* Standardized units are economical, easy to install. Get the facts on types, sizes, etc. Write to Detroit Steel Products Company, Dept. AB-10, 2260 East Grand Boulevard, Detroit 11, Michigan.



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What does this mean to you? When you send a buyer to a Savings and Loan Association, the loan will be made if it is at all possible. It will be made quickly. It will be made at the most favorable terms. These are some of the reasons why two out of every three builders and realtors prefer Savings and Loan financing for homes and small apartments they build and sell.

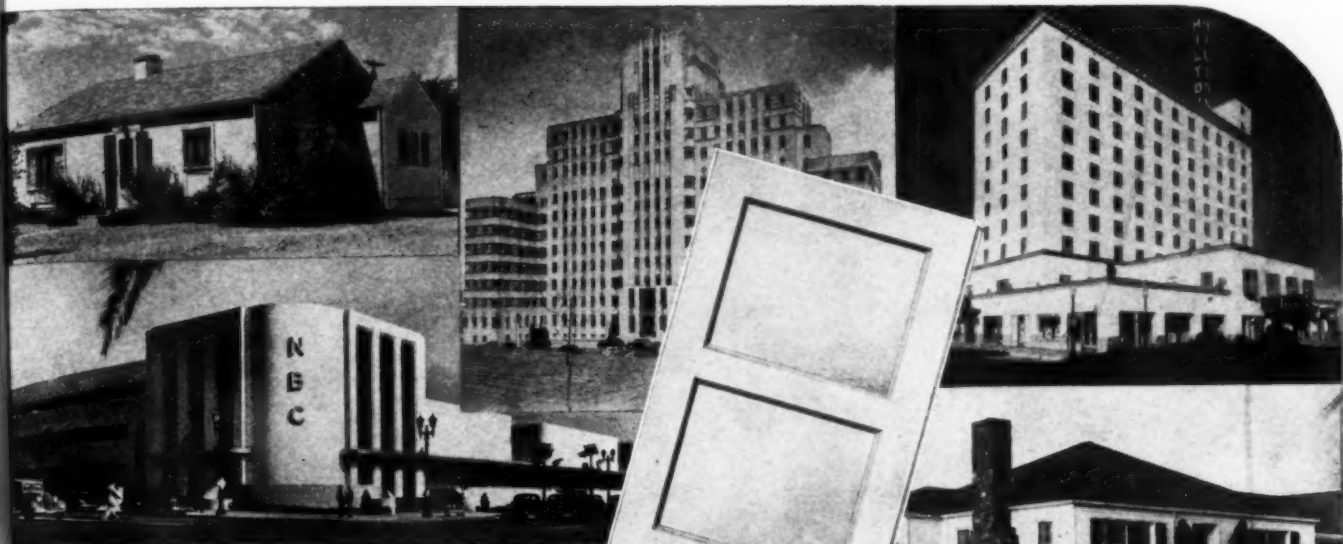
For home loans, go FIRST to your Savings, Building and Loan Association or Co-operative Bank.



LEADERS IN HOME FINANCING FROM COAST TO COAST

YOUR SAVINGS & LOAN ASSOCIATION OR CO-OPERATIVE BANK

MEMBER OF THE UNITED STATES SAVINGS AND LOAN LEAGUE



For 57 years . . .

Wheeler Osgood Products Have Helped Build America

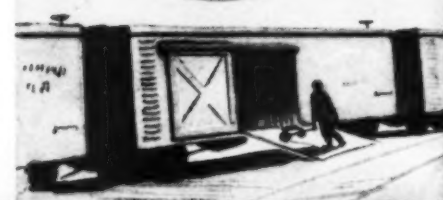
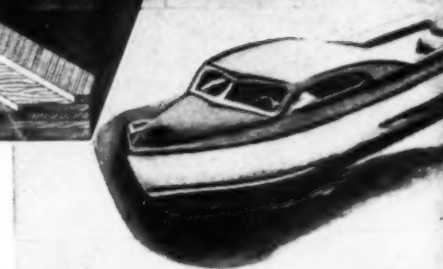
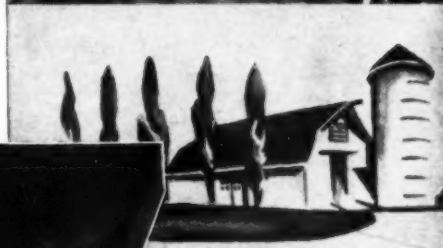
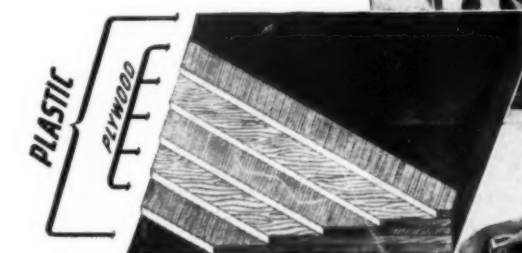
Most of the 35,000,000 doors made by Wheeler Osgood in the past 57 years have gone into the homes of America...

Wheeler Osgood products have also gone into such great buildings as The Marine Hospital in Seattle, The Municipal Auditorium in Oklahoma City and NBC's Radio City in Hollywood.

Today, our primary concern is to get Wheeler Osgood products to our jobbers to fill the vital housing needs of the nation . . . to help the nation's emergency housing program.

Two of our most widely-known, widely-used products are the amazing, new resin sealed Tru-Sized Door and versatile Laminex Plastic Faced Plywood. Look into the advantages of these modern, proved products.

*Contact your Wheeler Osgood office
for complete information.*



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Lasting, Crackproof Wall and Ceiling Beauty... the warm, rich surface of Upson Panels is quickly, easily finished with any good paint... easily cleaned and tough enough to take hard usage.

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No chain is stronger than its weakest link!
No building material can reflect its true quality when improperly applied.
The finest of flooring—or trim—or any good building material can have its goodness ruined by careless workmanship on the job.
So with Upson Panels! To insure the satisfaction which our product deserves, the simple application directions should be faithfully followed.

Use in thousands upon thousands of housing units has proven the utility and economy of Upson Panels—has proven that Upson Panels assure distinctive beauty—lasting satisfaction and remain forever **CRACKPROOF**. They give the added dollar-value to the home which every owner covets.
Carpenter Contractors are urged to give proper application to Upson Panels.
The day is approaching when Upson Panels will again be in full supply. In the meantime, let us send you descriptive literature showing the beauty of Upson Panels when properly applied.

THE UPSON COMPANY • LOCKPORT, NEW YORK



Upson floating fasteners, applied direct to studs or furring on 16" centers, anchor the panels securely from the back. No ugly nail holes to countersink or fill.



Ceiling panels go up quickly. Held in place by a T-brace, the panels are securely clinched by the fasteners by means of block and hammer. A permanent, **CRACKPROOF** ceiling!



Walls, too, are easily and quickly applied. Giant panels to cover the entire wall of an average room—or four-foot widths for artistic paneling.



Ready for the painter. And what a painting surface! Pre-sized at the factory, the beautiful pebbled surface of Upson Panels takes paint smoothly and easily—and uses less paint than ordinary wall surfaces.

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Easily Identified by the
Famous Blue-Center

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UPSON



The Crackproof Beauty Surface
with efficient insulating value.

AMERICAN BUILDER

AND BUILDING AGE

F O U N D E D — 1 8 7 9

OCTOBER

VOL. 68

1946

NO. 10

C O N T E N T S

AMERICAN BUILDER and BUILDING AGE

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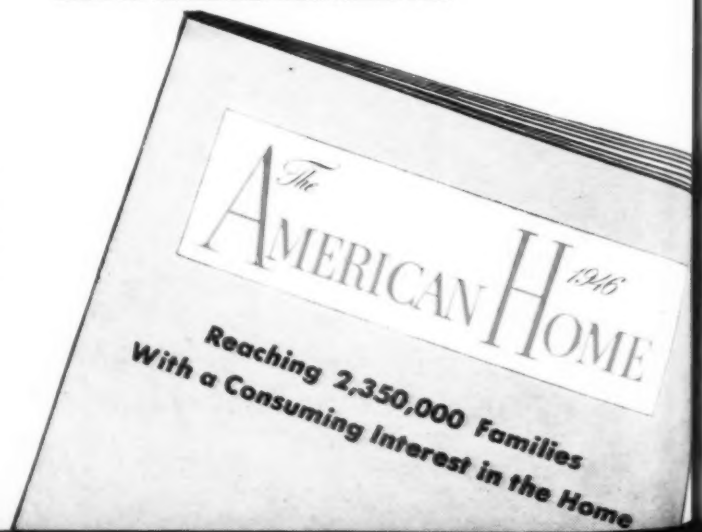
They **KNOW SOMETHING ABOUT BUILDING, TOO**

American Home families are going to build in a big way as soon as materials are available . . . 600,000 readers of this magazine intend to build new homes . . . 250,000 of them have already bought the real estate . . . and 900,000 American Home families will spend at least \$500 on home repairs.*

Right now—while they're reading *The American Home*—they're planning their new homes or deciding how to add that extra wing . . . what type of roofing will be best . . . whose paint they'll use. When the time comes for the actual construction to begin, these families are going to have a pretty definite idea of what they want.

That's why it's wise for you to check *The American Home* for building ideas that will be popular. And check the building materials advertised in this magazine . . . they're the ones these families are going to want.

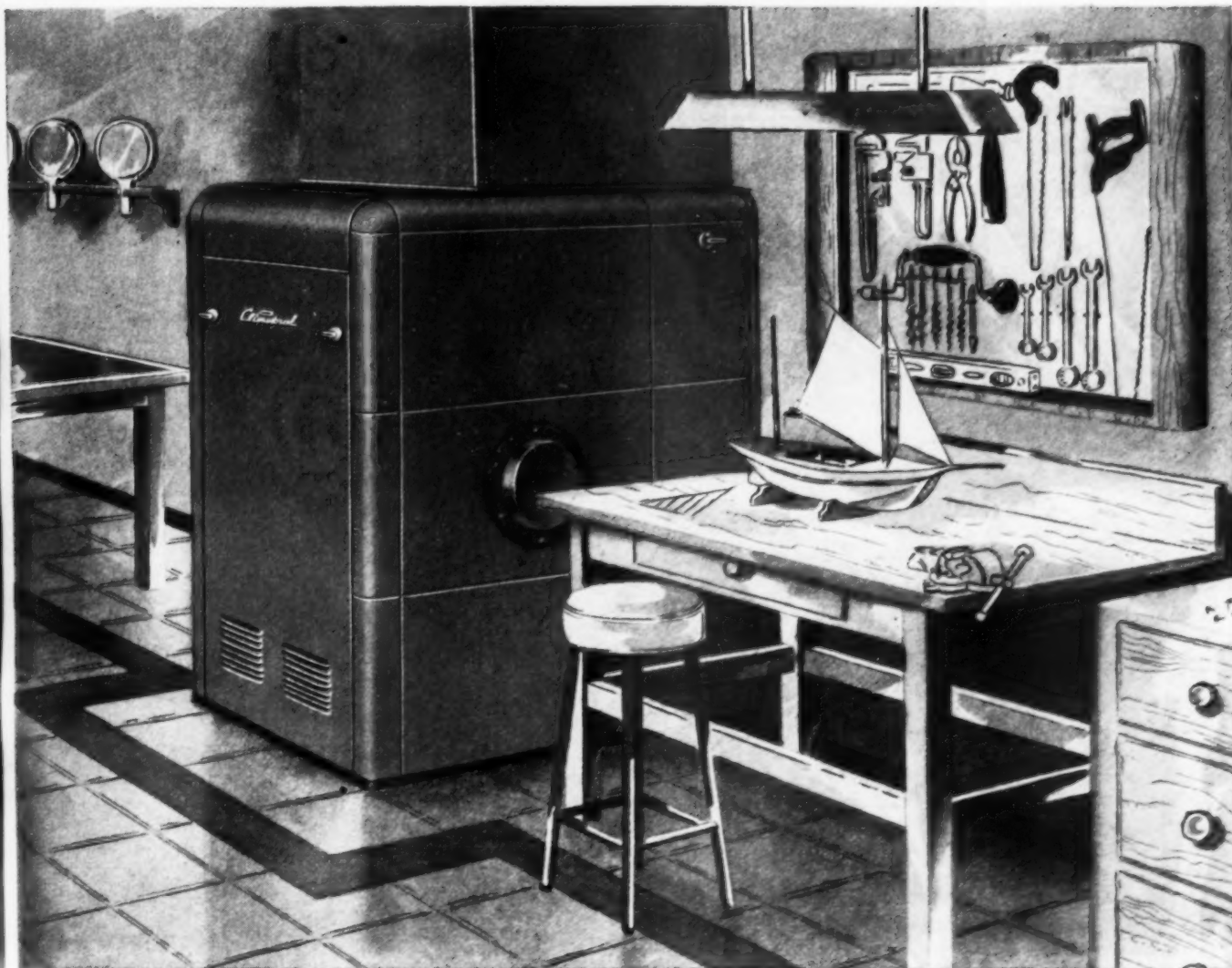
*Source: The American Home Reader-Consumer Panel.



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D-31

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You win the lasting good will of home owners when you provide Climatrol's *True Indoor Comfort*. Now they thank your good judgment for the immediate enjoyment of today's highest standards of indoor comfort. Later, they will appreciate your forethought in selecting an original installation to which future developments can be added easily.

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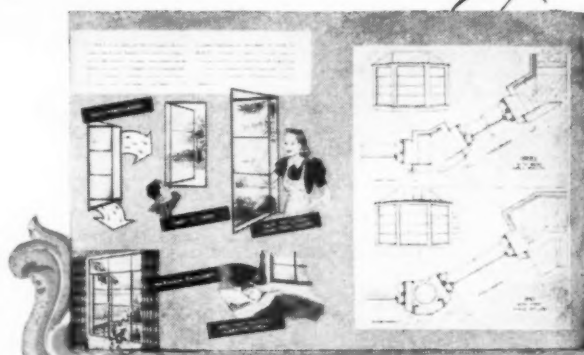


NOW READY FOR YOU

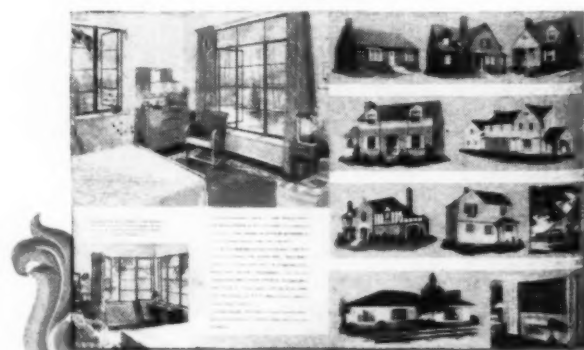
WINDOW IDEAS . . . double hung and casement window treatments . . . inspiring suggestions to enable you to create striking home interiors and exteriors for any type of architectural design—you'll find lots of them in this new Truscon Steel Window catalog!

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PUBLISHER'S PAGE

What Price Full Employment?

THE present full employment in this country has completely refuted the contentions of New Dealers, socialists and communists regarding (1) what would be necessary to cause full employment in the post-war period and (2) the effects that full employment would have.

Less than a year ago, they were still contending that private enterprise had become permanently unable to provide adequate employment. When the government greatly reduced its expenditures for war, they said, it would have immediately to begin huge expenditures on "public works," including housing, or we would soon have eight million or more unemployed.

The government now has greatly reduced its expenditures for war. Yet there are more employed than at any time during the war. And, because of shortage of labor and materials, especially for housing construction, the government has increasingly restricted other forms of both private and public construction. Everybody who really wants a job has one. Almost every industry is seeking more workers. Within a year after the end of the war the claim that private enterprise could not provide enough jobs has been proved utterly baseless.

Those who promoted big peace-time government expenditures and other government policies to cause full employment assured us that full employment would be a panacea for all our economic ills. Actual experience is disproving that, too. Although we have more employment and higher hourly wages than ever before, shortages of many things people want are not being reduced, general labor unrest continues, business complains about poor profits, and there is increasing inflation, and danger that inflation will get beyond control.

What is the trouble? The trouble is that increase of employment has been accompanied by a *decline of total produc-*

tion in many industries. In July, 1946, a year after the end of the war, total industrial production was 17 per cent less than in July, 1945. What this all adds up to, of course, is that there has been a *serious decrease in average output per person employed.*

Even the most ignorant and prejudiced should be able to learn from this experience (what intelligent persons already knew) that the only sane purpose of employment is useful *production*, and that *no imaginable increase of employment without a proportionate increase of production will remedy shortages, raise standards of living and stop inflation.*

There are two ways in which to increase construction and production, when, as now, we have full employment. One is for employees to do more and better work. The other is to increase investment of capital per employee in plant and tools; but this can be done only if industry can earn enough *profits* to raise the required capital. And the *facts* show that the increases in wages per hour made within the last year have been accompanied by *declines* in both labor productivity and profits in most industries.

This is not the way to maintain the full peace-time employment that we have temporarily attained. It is the way to increase inflation and to cause depression and widespread unemployment. And if inflation, depression and unemployment result it will not be the fault of private enterprise. It will be the fault of politicians and labor leaders who encourage their followers constantly to demand more pay for doing less work regardless of the inevitable ruinous effects on production, business profits and employment.

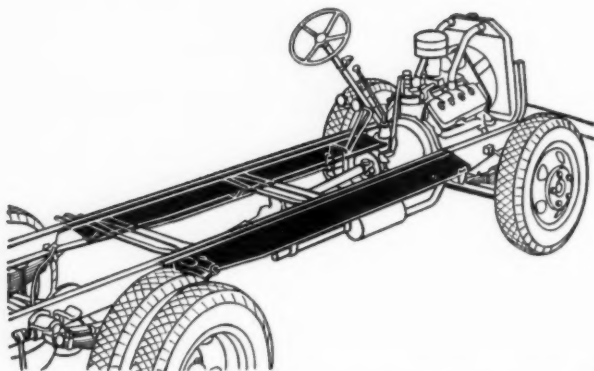
Samuel O. Dinn,

REGISTRATIONS SHOW IT — OPERATORS KNOW IT!

"FORD TRUCKS LAST LONGER!"

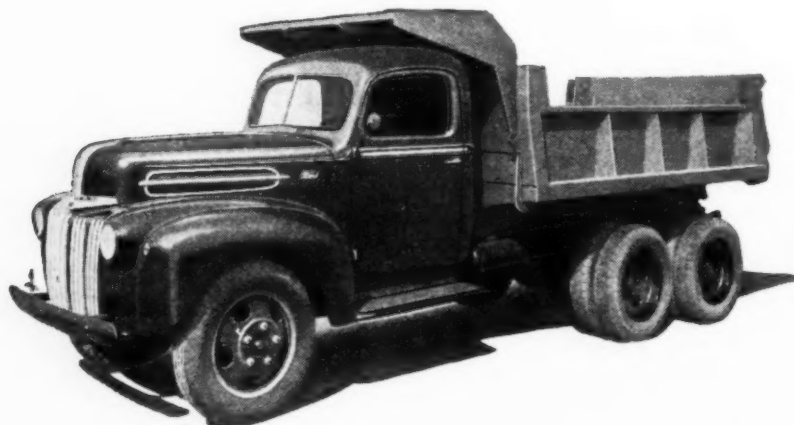


One big reason — FORD FRAMES STAND UP!



One of the big reasons why 78 per cent of all Ford V-8 Trucks ever built are still in use, is found in Ford frame engineering. Ford Light Duty Half-Ton units, for instance, have true *truck* frames—parallel side-rails—full SAE 34-inch width, taking standard bodies—rear kick-up and side-mounted springs for extra-low load height—alligator jaw cross-member—great strength and rigidity, for longer life to cab and body. The full-channel side-rails of Heavy Duty frames are *doubled* between springs, as illustrated, increasing side-rail strength 46 per cent—a construction far superior to old-fashioned fishplates.

Ford



Ford 194-inch wheelbase Heavy Duty Truck, with Thornton drive and 4-6 cubic yard Dump body by Anthony Co., Streator, Ill.




Only Ford offers all these long-life features: choice of 2 great engines, the 100-H.P. V-8 or the 90-H.P. Six—Flightlight aluminum alloy, 4-ring pistons—short, rigid, fully counter-balanced cast alloy steel crankshaft—big brakes, with non-warping, score-resistant cast drum surfaces—extra heavy sheet steel in fenders, hood, cowl and cab—4-pinion differential with triple roller bearing, straddle-mounted axle drive pinion.

There are *more than fifty* such examples of Ford

endurance-engineering in today's Ford Truck. NO OTHER TRUCK BRINGS YOU ALL THESE IMPORTANT EXTRA VALUES AT ANY PRICE. Each one adds to the years of faithful service you can confidently expect from your Ford Truck. Let your Ford Dealer point them out to you.

FORD TRUCKS

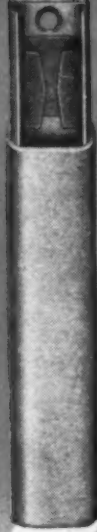
MORE FORD TRUCKS IN USE TODAY THAN ANY OTHER MAKE



"LAY-IN" XTENSIONDUCT

For Wall or Ceiling Extensions

Here's the neatest thing in extensions for carrying wires along walls or ceilings. Eliminates difficult fishing through narrow channels. No ugly clips. Only the smooth, flat capping shows on finished work. No. 111 holds two No. 14 wires.



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For On-The-Surface Wiring

It's easy to install wiring with NE Metal Molding. Screw down the base, lay-in the wires, snap on the capping.

No. 333 is only 7/16" thick, yet holds four No. 12 or No. 14 wires, or three No. 8 or No. 10 wires.

No. 888 is 11/16" thick, holds ten No. 14, No. 12 or No. 10 wires.

5 easy roads to BETTER LIGHTING



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Flat Armored Bushed Cable

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SURFACEDUCT

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Another lay-in surface raceway (2-1/8" x 1-5/8" cross section) for use with all types of suspended lighting, cove, trough or window lighting. Banks of lights can be switch-controlled. Interconnectable with other systems. Unique bridge anchors capping and devices securely; serves as wire retainer when Surface-duct is mounted overhead.



OVALDUCT

Rigid Oval Steel Raceway

An "in-the-surface" raceway for concealed extensions from existing outlets. Only 13/32" thick. Easily installed within plaster thickness. Electro-galvanized for protection against rust. In addition, the inside is enameled for extra smooth fishing.

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PRODUCTS CORPORATION
Box 897 - Pittsburgh 30, Pa.





control
insect attack
and rot with...

SANTOPHEN 20

When properly formulated, Santophen 20*—Monsanto's pentachlorophenol, technical—possesses the following qualities which give it many outstanding advantages for use as a wood preservative:

1. It is toxic to wood-rotting fungi, is toxic to termites and wood-boring insects and kills grass roots and other deleterious vegetation.

2. It is stable to light, to normal temperatures and to soil acids and alkalis.

3. It is not appreciably soluble in water—does not leach readily.

4. It is a chemical compound with fixed identity—chemically reproducible year after year without variation.

5. It can be determined analytically, which makes possible accurate control of solution strength.

6. It can be determined analytically in wood, thus enabling the determination of its distribution in the wood.

7. It makes possible a "clean" oil treatment; treated wood can be painted and finished as desired.

8. It does not require redrying of the wood after treatment.

9. It is economical to use.

*Reg. U. S. Pat. Off.



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lasts longer,
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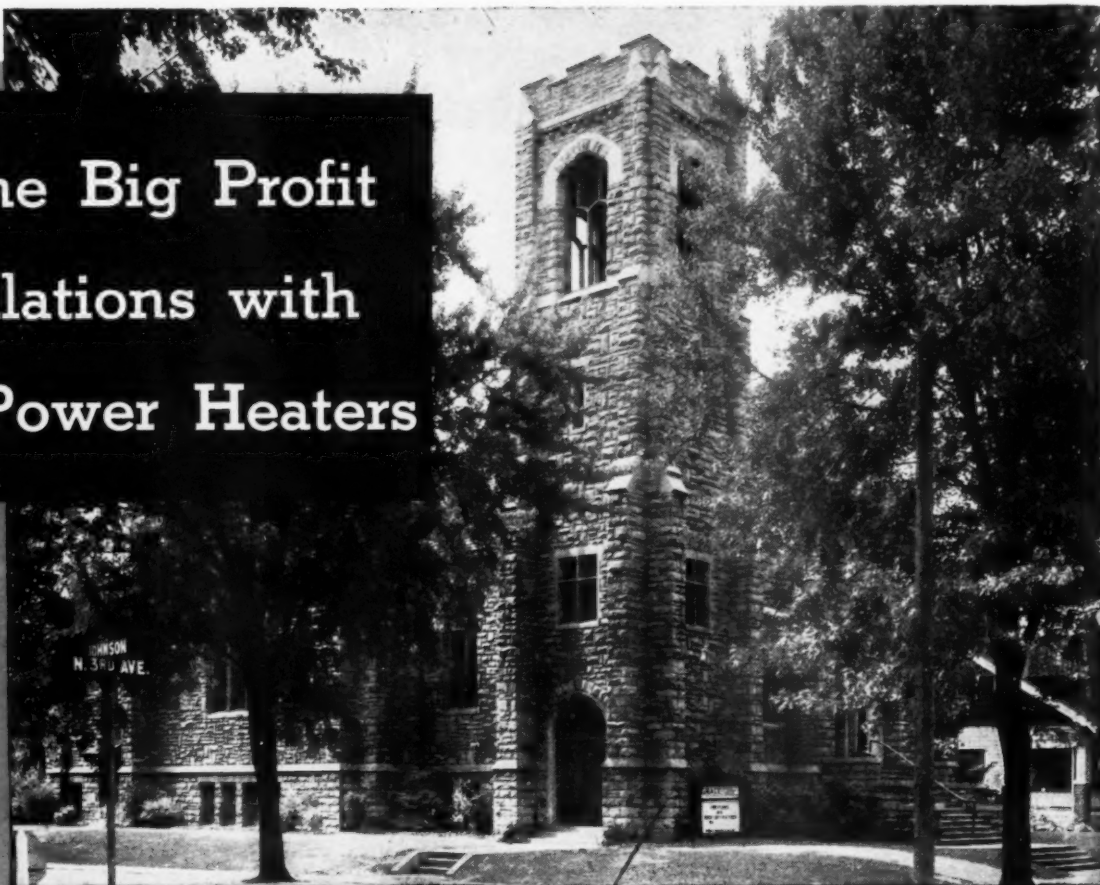


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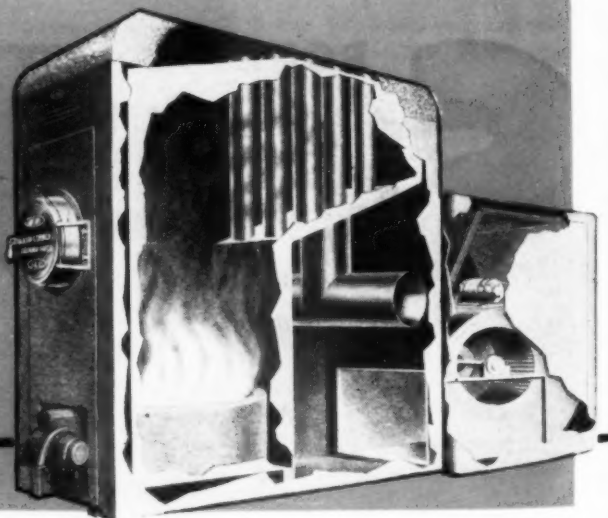


SKILDRILLS

Get the Big Profit Installations with J & C Power Heaters



Custom-built heating service and efficiency at production-manufactured heater cost—that's what you assure owners of big buildings when you offer J & C Power Heaters. And that's a sales-getting, money-making advantage. There is real profit in installing heating systems in large structures such as stores, garages, churches, schools, warehouses, factories, and airport buildings. J & C Power Heaters, rated from 160,000 to 2,800,000 BTU, are ideal for these and other heavy-duty heating jobs. Their 90% direct radiation surface captures more heat for distribution by blower. Sturdy one-piece welded construction minimizes heat loss and prevents dust and soot from entering air stream. There are J & C Power Heaters designed to burn gas, oil, or coal. Compact construction occupies minimum floor and wall space, clean lines help assure a permanently trim installation. Inside and out, J & C Power Heaters sustain the slogan of Jackson & Church Company—"Work Well Done Since '81."



JACKSON & CHURCH COMPANY

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Shingles fill that bill precisely. You can sell these colorful, fire-resistant shingles with complete confidence that they will build your business.

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• CHICAGO 3, ILLINOIS

"Don't tell us it can't be done"

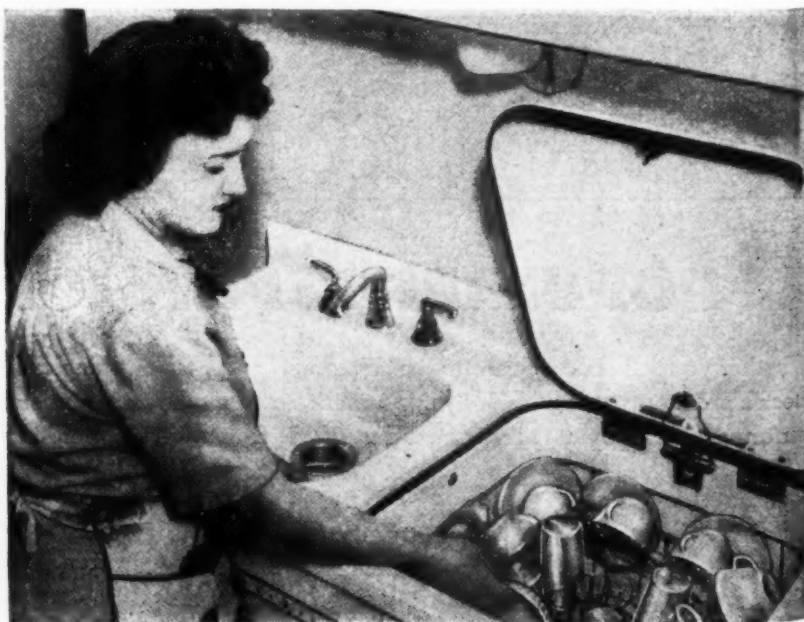


• Masontown, Pa., site of 110 homes being built under the direction of the George C. Brown Co. of Pittsburgh. Architect,

William C. Young. Contractor, Mellon-Stuart. This is the first in a series of the George C. Brown Company developments.



G-E EQUIPPED HOMES



• New owners are enthusiastic about better living, electrically. Mrs. E. C. Detisch, of 18 Cumberland Ave., Masontown, Pa., is especially proud of her G-E Dishwasher and Disposall. But, like other Masontown homemakers, she has found that *all* her G-E appliances—Range, Refrigerator, Steel Cabinets, Washer, and Water Heater—help make housework easier, living pleasanter, in her new all-electric home.

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done — **WE'RE DOING IT!**"

**"We're Selling G-E Equipped Homes
For As Little As \$51 to \$53 a month," Says the
George C. Brown Company of Pittsburgh.**

Here's what George C. Brown, president, has to say about his company's postwar homes at Masontown, Pa.

"These homes are the first fulfillment in this region of the ease and convenience which housewives have been promised since before the war.

"Standard equipment in every home includes the *all-electric kitchen* with G-E Range, Refrigerator, Steel Cabinets, Dishwasher, and Disposall,* as well as a G-E Washer and Water Heater.

"But most important is the fact that these homes with G-E equipment cost the owner only about \$3.00 a month more than the same homes would cost without *any* equipment.

"So don't tell us it's impossible to include the best electric

appliances in new homes, and still keep the cost down ... we're doing it!"

In Pittsburgh, Denver, Kansas City, St. Louis—all across the country, architects and builders are planning new homes, *designed for better living, electrically!*

From a cost angle: they know it doesn't cost them a dime extra to include all the dependable G-E Appliances. And that there's only a minor increase in cost to the buyer, usually less than \$3.00 a month on his mortgage payments.

From a sales angle: they know that today's homeowner wants, and expects, a completely equipped, up-to-date home; that a home with no extras to buy is always a fast seller.

From a quality angle: they know that selling complete, all-electric homes will bring them a reputation as *good builders*—and a good reputation is going to be mighty important as competition gets stiffer.

Most women want G. E.

In planning your new homes, keep this in mind too: *recent national surveys showed that 53 per cent of all women prefer G. E. to any other appliances!*

This preference, and the record of G-E appliances for *dependable performance*, are good reasons why so many builders and architects are specifying G-E appliances as standard equipment.

Let us help you plan your 1947 program. For complete information on all-electric homes, with special emphasis on the kitchen and laundry, write to G-E Home Bureau, General Electric Company, Bridgeport 2, Conn.



It can cost less to live better in these new homes, financed by the Housing Mortgage Corporation of Pittsburgh. Inclusion of G-E equipment in the mortgage makes only a minor difference in the initial cost. Economical operation and maintenance, and the long life of G-E appliances, more than offset the slight increase in monthly payments.

THE APPLIANCES MOST WOMEN WANT MOST

GENERAL  ELECTRIC

*Trade-Mark Reg. U. S. Pat. Off.

Better Floors at Lower Cost

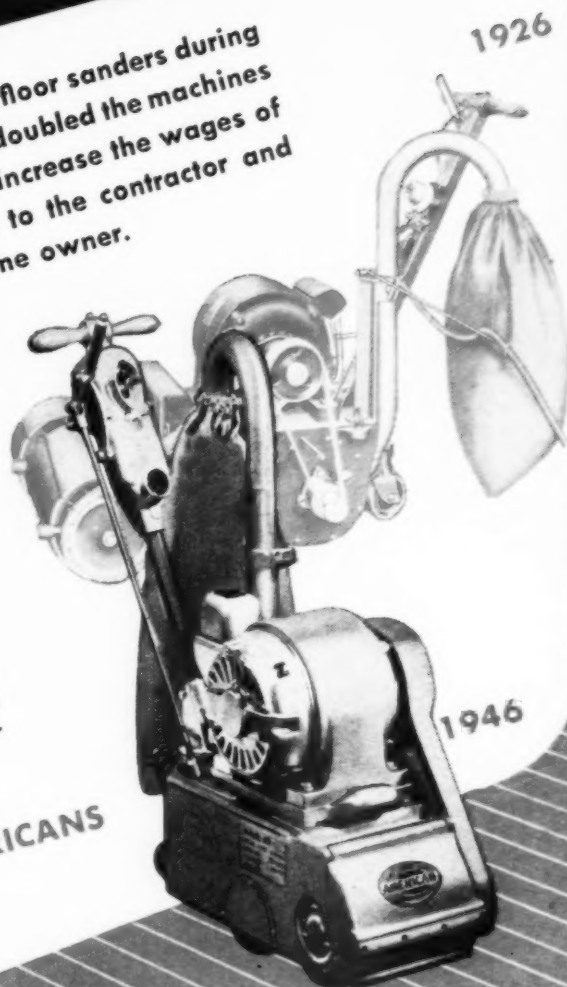
THE AMERICAN WAY

Mechanical improvements in American floor sanders during the past twenty years have practically doubled the machines of productive capacity. This has helped increase the wages of the operator, brought bigger profits to the contractor and given greater satisfaction to the home owner.

Today, dynamically balanced sanding drums turn twice as fast. Aluminum has replaced cast iron. Motors have more power. Smooth running "V" belts are used instead of chain drives... These are a few of the improvements American has made to give you better floors at a lower cost. To be sure your floor machines are in step with modern building practice—

Write today for
complete details
and prices—no
obligation.

ALWAYS USE AMERICANS

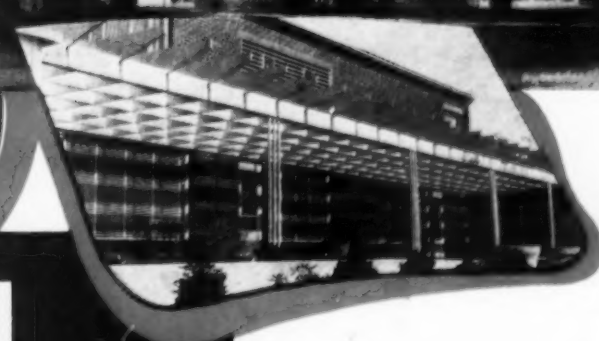


AMERICAN

FLOOR SURFACING MACHINE CO., 511 So. St. Clair St., Toledo 4, Ohio



Ames Aksila, developer of the Worcester projects.



Front and rear views of one of the 400 distinctive homes planned for "Knollwood" and "Salisbury Heights" development in Worcester, Massachusetts.

MODUFLOW

Selected FOR 400-HOME

COMMUNITY DEVELOPMENT

One of the country's ultra-modern postwar community projects has been designed by Ames Aksila, Worcester, Mass., Developer and Builder. Unusual features include ceiling panel heating of all first floor rooms. And each of the 400 homes will be equipped with a Moduflow control system, which is Minneapolis-Honeywell's latest contribution to heating comfort and efficiency.

Here is concrete evidence of the way Moduflow has "taken hold." It demonstrates how in modern housing developments, Moduflow is being used as a distinguishing sales feature—a feature that

commands a premium in the better homes and provides a powerful advantage whenever competitive selling is a factor.

But, regardless of any project's size, whether a single home, or 400, when Moduflow is included, you are able to assure your prospects of a new high standard of house heating comfort. Moduflow control systems are now available and their performance record has already been established in thousands of homes throughout the nation. Minneapolis-Honeywell Regulator Co., 2655 Fourth Ave. S., Minneapolis 8, Minn; Canadian Plant: Toronto.

MODUFLOW means modulated heat with continuous flow. Since heat losses are continuous, heat supply should also be continuous but modulated to whatever temperature is required to offset the heat loss. Moduflow automatically maintains continuous balance between heat loss and heat supply.

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

**national
magazine
surveys*
prove
women
want**



electric ranges!



The way to find out what women want is to ask them. Leading women's magazines have done that. Here's what they learned:

- * **WOMAN'S HOME COMPANION** survey shows that *more* women plan to buy an Electric Range than *any other type!*
- * **McCALL'S MAGAZINE** readers made the Electric Range their 2-to-1 "must have" choice in a recent contest.
- * **SUCCESSFUL FARMING** survey shows that nearly twice as many REA customers will own an Electric Range after *first two postwar* years as "now have" one.
- * **HOUSEHOLD MAGAZINE** survey shows that 3 times as many women want Electric Ranges as "now have" them.
- * **COUNTRY GENTLEMAN** survey shows that among the upper two-thirds of white farmers, the Electric Range is the 2-to-1 choice!

The answer is that women prefer Electric Ranges for convenience, cleanliness, dependability and economy. The way to give them what they want is easy—wire the homes you build for Electric Ranges! This built-in wiring costs little, but pays big dividends in selling houses.

Electric Range Section
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 E. 44th Street, New York 17, N. Y.

A-B STOVES • ADMIRAL • CROSLEY • ELECTROMASTER • ESTATE HEATROLA • FRIGIDAIRE • GENERAL ELECTRIC • GIBSON • HOTPOINT
KELVINATOR • LEDO • MONARCH • NORGE • QUALITY • UNIVERSAL • WESTINGHOUSE

TO KEEP THEM MODERN
wire your houses
FOR ELECTRIC RANGES



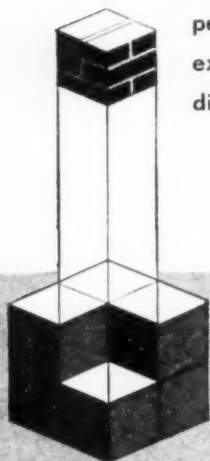


Veterans' housing costs less with Modular Brick and Tile

Yes—these are the materials that help you save money for veterans. And that's mighty important today.

Modular brick and tile have been designed specifically for economy. Using them for veterans' housing means over-all economy.

When you use brick and tile of coordinated dimensions, your estimating, planning and layout are simplified. Modular brick and tile fit perfectly between openings and join exactly with other units of coordinated dimensions such as doors and windows.



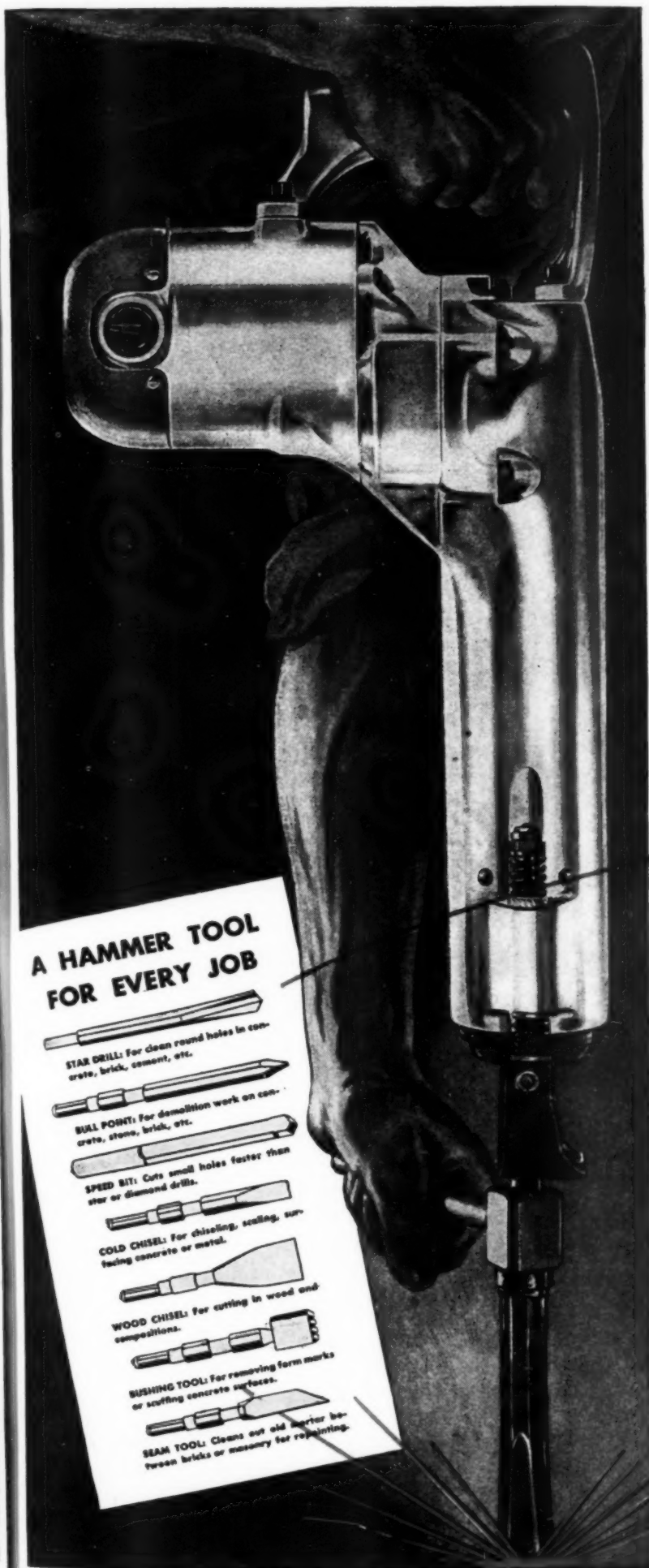
You practically eliminate wasteful cutting and chipping. You save time. You build veterans' homes more quickly—less expensively—as attractively as ever.

Veterans save because more of their building dollar goes into the finished home. They save, too, because of the reasonable first cost—long lasting quality—low upkeep and maintenance charges—and fire-safety that brick and tile provide.

Write for FREE booklet, "8 Small Homes of Brick and Tile." Address Structural Clay Products Institute, Dept. AB-10, 1756 K Street, N.W., Washington 6, D.C.



Now it will be built with modular-designed
BRICK AND TILE



This Tool Saves You MONEY . . . MUSCLE . . . MAN-HOURS

**on any hammering
job that uses
tools like these**

Put Black & Decker Portable Electric Hammers to work on your toughest jobs . . . and watch your savings mount up! These high-speed, hard-hitting Hammers drill or channel in brick, stone or concrete . . . chip, clean and scale metal . . . gouge, shape and notch timber . . . drive spikes . . . tamp and vibrate concrete forms . . . scuff concrete surfaces and remove form marks . . . handle brute-force demolition . . . save time and effort on countless jobs from seaming and caulking to tree surgery.

Light, compact and completely self-contained, a Black & Decker Electric Hammer requires no transformer or extra equipment . . . operates wherever there is an electric outlet, AC or DC, or from a portable generator.

Our free "Hammer Handbook" is packed with facts and on-the-job photographs which show how Black & Decker Portable Electric Hammers make quick work of tough hammering jobs. Write for your copy to: The Black & Decker Mfg. Co., 666 Pennsylvania Ave., Towson 4, Md. For full information on Hammers and expert help on any tooling problem, call your nearby Black & Decker Distributor.

A HAMMER TOOL FOR EVERY JOB

STAR DRILL: For clean round holes in concrete, brick, cement, etc.

BULL POINT: For demolition work on concrete, stone, brick, etc.

SPEED BIT: Cuts small holes faster than star or diamond drills.

COLD CHISEL: For chiseling, scaling, surfacing concrete or metal.

WOOD CHISEL: For cutting in wood and compositions.

BUSHING TOOL: For removing form marks or scuffing concrete surfaces.

SEAM TOOL: Cleans out old mortar between bricks or masonry for repointing.

LEADING DISTRIBUTORS  EVERYWHERE SELL

Black & Decker
PORTABLE ELECTRIC TOOLS

Patching and pampering go out the window



WHEN

Firestone *Velon**

TINTED SCREENING GOES IN

Now you can free your clients from screen worries with Firestone's amazing new material—Velon.

Resists impact up to six times more than metal screening of equal gauge, without dents, bulges or breaks.

100% corrosion-proof. Impervious to sun, rain, salt-spray. Velon screens cannot rust or leave ugly bleed stains down the front of the house.

Easy to handle. Only one-fifth the weight of metal, and corresponding-

ly more manageable. Cuts with ordinary scissors, leaves no sharp ends.

Blended beauty. Velon screening is tinted to harmonize with interior and exterior color scheme.

Now available in standard widths and gauges. Investigate Velon screencloth for utmost in client satisfaction.

FREE—Write Firestone, Akron, for your copy of Velon booklet and samples of Velon screening.



*TRADE MARK

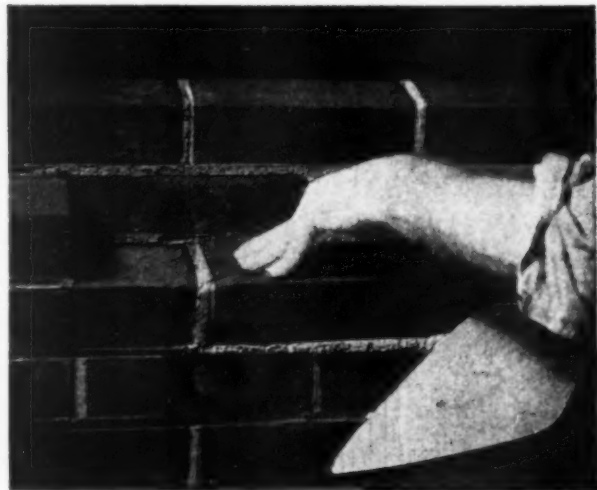
LISTEN TO THE VOICE OF FIRESTONE MONDAY EVENINGS OVER NBC

BRIXMENT MORTAR

Is More Plastic



To compare the plasticity of any two mortars, try shoving a brick into place, with a full head



joint. The more plastic the mortar, the easier the work. Try this with Brixment mortar!

AND GOOD PLASTICITY

IS THE FIRST REQUIREMENT OF GOOD MORTAR

One of the most important characteristics any mortar can possess is *plasticity*. Within certain limits, plasticity is the greatest single factor not only in the *economy* of the brickwork, but also in its strength, its neatness, and its resistance to the passage of water.

One of the outstanding characteristics of Brixment mortar is its unusual plasticity. For twenty-five years, brick-

layers all over the United States have agreed that the workability of Brixment is comparable to that of straight lime putty. This exceptional plasticity makes it easy for the bricklayer to secure neat, economical brickwork, with the brick properly bedded, and the joints well filled. And because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.

LOUISVILLE CEMENT CO., Incorporated, LOUISVILLE 2, KENTUCKY
CEMENT MANUFACTURERS SINCE 1830

Built-in COLOR is the **BIG NEWS** in Modern
Concrete Work—and it **COSTS SO LITTLE**
with **ART-ROC**



Very little labor cost—small
material cost for permanently
beautiful *Built-in* COLOR!

Everybody likes color but most people don't know that they can easily have color in any flat concrete surface—at small cost for labor and very little added cost for material. You can give your clients color in concrete by specifying and using Truscon ART-ROC Aggregate which is simply dusted on before finish troweling and produces a rich, beautiful finish of built-in color that is right IN the concrete and is weather-proof, fade-proof, and, being twice as hard as iron, nearly wear-proof. Colored concrete sets your jobs apart and gives them distinction—and adds a permanent sales feature. Over fifteen years of successful use. We invite your inquiries. Write Dept. AR-1, Truscon Laboratories, Division of Devoe & Reynolds Co., Inc., Detroit 11, Michigan.



SEND FOR
FREE FOLDER

TRUSCON
ART-ROC
AGGREGATE

GIVES
Built-in COLOR
HARDNESS
DURABILITY
EXTRA VALUE
at Low Cost!

TRUSCON *Laboratories*



This is the Aluminum Window

The mass housing market
has been waiting for!

And no more
expensive than
ordinary
windows!



Merchandised through the sash and door industry!

At last an aluminum window for the mass housing market . . . installed price about the same as wooden sash . . . yet offering design and mechanical advantages that make it the leader in the metal hung sash field! Available in two lights or with horizontal cut-up bars . . . an experienced operator can make a complete installation in about fifteen minutes! Absolutely weathertight by wind tunnel tests. Can be hung in either wood or all-aluminum frame.

FREE! Instruction Booklet. Complete "how-to-do-it" instructions for the builder . . . includes detail drawings, sizes, step-by-step picture instructions.

Write "Premier Aluminum—Phoenix, Arizona."

Easy to Install • Easy to Service

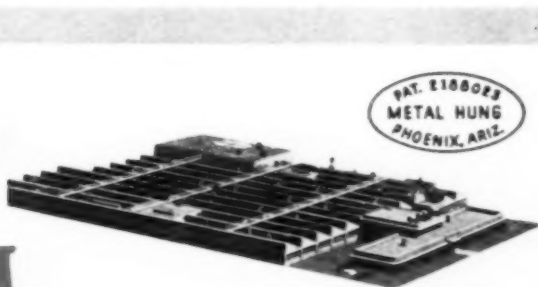
*No Putty • No Leakage, Sash
Glazed with Neoprene*

*Weatherproof • Built-in Stainless
Steel Weatherstripping*

Positive Lock • Spring Sash Balances

Non Corrosive • Double Strength Glass

Premier ALUMINUM Windows



PREMIER METAL
PRODUCTS CORP.
PHOENIX, ARIZONA

Now Ready for Immediate Delivery.

For All Types of Houses... For Farm, Commercial and Industrial Buildings



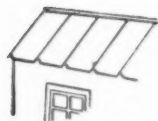
REYNOLDS LIFETIME ALUMINUM CLAPBOARD SIDING

A sensational and original development of Reynolds engineering! Each clapboard sets firmly into the locking flange of the clapboard beneath, so that all nailing is completely covered! .032 gauge, 8 and 12-foot lengths, exposed clapboard surface 8". Special Starter Strip, Butt Joints and Corner Finishing Caps. Makes a beautiful Colonial sidewall when painted—or may be left unpainted. Either way, the inside aluminum surface provides efficient insulation.



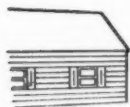
REYNOLDS LIFETIME ALUMINUM SHINGLES

Soundly engineered shingles of .027 gauge aluminum, with firm and watertight interlocking flanges. Nails are completely covered. Coverage, 8" x 14½". Shadow line, ¼". Accessories include special Eave Starter, Ridge Cap, Gable End Cap, Hip Cap and Valley. Combining beauty with efficiency and lifetime durability, this roofing is perfect for any house.



REYNOLDS LIFETIME ALUMINUM "SNAP-SEAL" ROOFING

A new and expertly engineered product, uniform and handsome in appearance, with a permanent, watertight interlock between sheets. All nails completely covered. Supplied with special Eave Starter, End Starter, End Wall Flashing and Gambrel Joint, as well as Ridge Roll and Formed Valley. 6, 8, 10 and 12-foot lengths, 24" coverage. 6-foot sheets weigh only 5½ pounds!



REYNOLDS LIFETIME ALUMINUM WEATHERBOARD SIDING

.027 gauge solid aluminum sheet, crimped in simulation of clapboard—which effect can be enhanced by painting. Supplied in 6, 8, 10 and 12-foot lengths, 24" coverage, exposed "clapboard" surface 4". Easily erected in horizontal strips, 12 feet weighing 11 lbs.



REYNOLDS LIFETIME ALUMINUM CORRUGATED ROOFING AND SIDING

.027 gauge aluminum sheet in either 2½" x ½" or 1¼" x ¼" corrugations. 6, 8, 10 and 12-foot lengths, covering width 24". Easily handled—even the 12-foot length weighs only 11 lbs.! Makes a structurally strong siding and roofing. Supplied with Ridge Roll, Formed Valley and Roll Flashing.



REYNOLDS LIFETIME ALUMINUM 5-V CRIMP ROOFING AND SIDING

Distinguished by two paired "V" crimps down each side, with one crimp down the center for extra structural strength, this .027 gauge roofing and siding is superior in appearance and efficiency. Weight is less than half a pound per square foot. 6, 8, 10 and 12-foot lengths, covering width 24". Accessories include Ridge Roll, Formed Valley and Roll Flashing.



Aluminum requires no protective surface coating. However, it may be painted for decorative purposes, as in this house constructed with Reynolds Lifetime Aluminum Building Products.

REYNOLDS LIFETIME ALUMINUM BUILDING PRODUCTS

THE building industry had a right to expect that out of wartime experience would come new, better, *permanent* building products in time to meet America's critical shortage. Reynolds answers that call with a great new line of aluminum building products... soundly engineered... already being delivered in tremendous quantities... already going up in America's most modern homes!

You know the advantages of aluminum... fire-proof, rust-proof, impervious to rot, vermin and termites... these mean safety and lifetime durability, with low maintenance cost. One-half to one-third the weight of most comparable building materials, yet structurally strong... that means ease of handling, economy in shipping, a structure firmly built. And you can figure for yourself the insulation value of specific installations... knowing that aluminum surfaces

reflect 95% of all radiant heat, inward in winter, outward in summer.

This is the beginning of a new era in building. Those who now sponsor Reynolds Lifetime Aluminum Building Products will reap the rewards of enterprise. For as these materials now rise on city lots and farms and the sites of industry, they mean far more than a solution to today's problem. They stand as models for the building industry of tomorrow!

Distribution is through established building trade channels. Contact your supply source for full information.

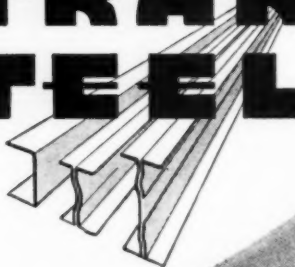


REYNOLDS METALS COMPANY

BUILDING PRODUCTS DIVISION

LOUISVILLE 1, KENTUCKY

BUILD WITH STRAN STEEL



Easy to Design with . . . Easy to Build with



ARCHITECTS find Stran-Steel practical and economical to use. It provides durable, rigid, fire-safe framing of lightweight steel, yet permits wide flexibility in working out designs.

BUILDERS like to work with Stran-Steel. Pre-cut to required lengths, the framing members are assembled with self-threading screws. Other building materials are simply nailed to the frame by means of the nailing groove, a patented feature of all Stran-Steel studs and joists, which grips nails as in a vise, holds them permanently and securely. The frame goes up quickly, without the use of special tools or equipment.

PROSPECTIVE BUYERS are quick to appreciate the advantages of Stran-Steel. It gives homes, apartments, stores and industrial buildings a greater investment value, since sag-, rot- and termite-proof framing means lower maintenance costs.

For full details, see Sweet's File, Architectural, Sweet's File for Builders, or the January issue of Building Supply News.

GREAT LAKES STEEL CORPORATION
Stran-Steel Division • Penobscot Building • Detroit 26, Michigan
UNIT OF NATIONAL STEEL CORPORATION



● Yes, sir. The Weather Man is boss. When it comes to placing a Flintkote Asphalt Shingle on the market... he's the one we have to satisfy.

In the Flintkote Laboratory, there's a Weatherometer... a machine that makes time really fly. It produces weather effects in one-tenth the time of outdoor exposure.

Day after day, hundreds of shingle samples undergo rigorous exposure tests in this machine.

And, year after year, thousands of shingle samples are standing tests by the weather itself on the Flintkote Roof Decks in New Jersey, Louisiana, Illinois

and California. Some for as long as 20 years.

At Flintkote, it's not enough for skilled scientists and engineers to say a shingle is good... that it will retain its colorful beauty... that it won't crack in cold climates or soften in blazing sun.

Until the *Weather Man* puts his stamp of approval on a Flintkote Shingle... approval that enhances your reputation by ensuring long years of service to the home owner... it does not leave our plants.

The Flintkote Company, Building Materials Division, 30 Rockefeller Plaza, New York 20, New York. Offices in principal cities.

Where the Weather man is Chief Inspector

FLINTKOTE

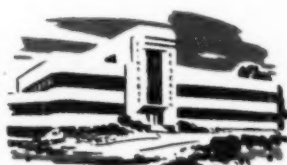
the extra years of service cost no more!



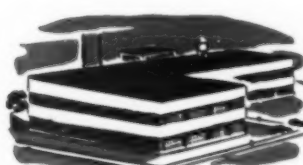
FLINTKOTE QUALITY BUILDING MATERIALS FOR MANY PURPOSES



Flintkote Asbestos-Cement Shingles and Siding are ideal for new construction... or for the economical modernization of existing homes.



A new \$1,000,000 research laboratory, part of a \$16,000,000 plant expansion program, will soon bring you even better Flintkote products.



Flintkote Cold Process Built-up Roofs go on fast, and economically, without fire hazard, when they're applied by brush or spray equipment.



Flintkote Insulating Wool is easy to apply, light in weight, fire resistant, and won't mat or settle. Provides year-round home comfort.

The Martha Washington

by **ELJER**



ELJER

PLATE No. B 3156 P

Remember: Adequate housing will eventually mean at least two bathrooms in every home.

HERE IS GOOD NEWS!

Ford City, Pa.—Eljer Co., producers of fine vitreous china and enameled cast-iron plumbing fixtures, today announced that production has begun on the Martha Washington lavatory.

This Martha Washington 20" x 18" with raised shelf back, anti-splash rim, concealed overflow, combination supply fitting, snap action pop-up waste and modern styling, is engineered to Eljer's high-quality standards in vitreous china plumbing ware. It will find immediate acceptance in all types of home and commercial building and remodeling operations.

Eljer Co. expects to achieve constant increases in deliveries of the Martha Washington during the coming months. Eljer General Offices are at Ford City, Pa.

KEEP YOUR WAR BONDS!

ELJER CO. . . . FACTORIES AT

FORD CITY, PA. • SALEM, OHIO • LOS ANGELES, CALIF.

SINCE 1904 MAKERS OF FINE PLUMBING FIXTURES

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MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

NAHB Urges Building Demonstration Homes for Veterans

A highly effective way for home builders to tell the public in an understandable way about the problems of building today has been suggested by the NAHB. It is through the building of a demonstration veteran's house.

The purpose of the demonstration is to show effectively what the efficient private builder can accomplish with modern techniques and modern materials. It would also illustrate concretely the causes for today's costs and delays, and demonstrate exactly what can be produced within price ceilings and current regulations and conditions.

The proposal contemplates a contest for the best plan, erection of the home in a prominent location, use of modern materials and methods, and the generation of continuing public interest through aggressive promotion. One suggestion, made to drive home present day costs, is that a large billboard be erected at the site bearing on one side each estimated cost item with the final cost of the item to be posted opposite.

Public observation of the construction could be provided for with visual demonstration of cost-cutting techniques by use of power tools, jig tables and similar cost and time saving equipment. A "big splash" open house is suggested by NAHB, with final disposition of the home to a war veteran and his family.

Chicago Builders Blame Vets' Housing Lag on Three Unions

Three Chicago unions—the plasterers, lathers, and glaziers—were charged recently with retarding the veterans' housing program in that city in a report by Martin C. Huggett, executive director of the Chicago Metropolitan Home Builders Association. The report was made on a study of labor conditions in the building trades in Chicago and suburbs. It said, "The lathers, plasterers, and glaziers, operating on their present volume of production, will retard the housing industry to approximately 17,000 homes and apartments for a year's production." (The goal was 161,000 units for metropolitan Chicago by 1948.)

Huggett emphasized that if the three unions continue their present practices which cause delays, the activity of other building trades will be held down to one-third or one-fourth of capacity. As an example of how union rules cause delays, he said, plasterers insist on putting on three coats despite the fact that all building codes require no more than two coats. He added that lathers will put on only 100 square yards of lath on a house a day, and usually quit the job two hours early while still drawing eight hours of pay.

1947 Home Builders Exposition Promises to Surpass All Previous Product Shows

The 1947 annual convention and exposition of the National Association of Home Builders of the United States, to be held Feb. 23-27 at the Stevens Hotel, Chicago, will be the most colorful, best attended meeting of builders ever staged, judging by the early interest being shown in it. Already more than two score prominent manufacturers and producers of home building materials, appliances and services have reserved display space in the mammoth Exposition Hall of The Stevens—the world's largest exhibition hall in the world's largest hotel.

Commenting on the unprecedented early demand for space, Paul S. Van Auken, convention and exposition director, told *American Builder*, "We are confident that every inch of floor space in the 1947 exposition will be taken by exhibitors. The tremendous interest in this show is best demonstrated by the early and widespread demand for space. We believe it most significant that requests for approximately 65 per cent of the exhibit space were received within two weeks after the mailing of the exhibit prospectus and floor plan last month. The new floor plan," he continued, "laid out with a view to giving larger display spaces, has been well received."

The convention and exposition committee have announced their intention of making technicolor movies of the exhibits in the 1947 exposition for showing during the year to all the chapters of the national association. Mr. Van Auken pointed out that in this way manufacturers or producers who display their products will get the added benefit of reaching those who find it impossible to attend the convention and exposition.

The Exhibit Prospectus and Floor Plan, mailed to more than 2,000 building product manufacturers, reported that the membership of the NAHB, "as we go to press," is more than 10,000, with 86 affiliated local associations located in all sections of the country. By convention time, "at the rate we are growing," the membership will be 12,000 with affiliated local organizations in more than 100 cities, it predicted.

Attributing the substantial growth of the national association to the fact that the

builders are now "ticking," Mr. Van Auken said, "The NAHB is now a great national organization fighting improper encroachment upon our free enterprise system, through the power of an awakened and informed public opinion; it is seeking a standard code of ethics for the home building industry, and equal building codes in all parts of the United States; and, it is constantly working to foster home ownership in the people's minds and hearts, and to



Random Shots from the 1946 Show

speeding housing for all Americans."

The 1947 Convention program promises to be as important, constructive and interesting as the exposition will be large and colorful. Beginning with the formal opening on Monday afternoon, Feb. 24, the exposition will be formally opened a day earlier to enable early arrivals and guests of the exhibitors to view the displays; experts on land planning, design, construction technique, mortgage finance, labor relationships and modern merchandising methods will head up a succession of up-to-the-minute, informative and timely sessions.

Although the meeting is designed to be a "working conference," nationally known speakers will be featured at every session of the convention. In addition, it is planned that various agencies of government concerned with housing will be represented on the program by qualified spokesmen.

ALLIED BUILDING CREDITS, INC.

Announces:

To make the homes you build for G.I.'s as attractive financially as they are pleasing to the eye, Allied Building Credits, Inc., has devised the G.I. Home Security Plan. Its function—to tide the G.I. home-owner's family safely over the critical period of uncertainty which follows, should the home owner die. During this time, the G.I. Home Security Plan guarantees to the home buyer that mortgage payments will be made for the family.

How Does This Plan Benefit Builders?

National interest is concentrated on the veteran's welfare, and with 90% of all new housing for veterans, this new ABC plan is indeed timely. A service that fits exactly the great G.I. market, the G.I. Home Security Plan will gain much favorable and invaluable word of mouth advertising for you—it will increase many times your most important intangible asset: good will.

Certainly worthwhile, certain to find eager acceptance by home buyers, this new exclusive Allied Building Credits plan provides security on a basis and at a cost obtainable nowhere by the mortgagor as an individual. *The protection afforded, in most cases, costs only a few cents a month.*

Who Is Eligible Under This Plan?

The G.I. Home Security Plan was

• A UNIQUE SERVICE FOR PROJECT DEVELOPMENTS

The G.I. Home Security Plan



especially designed to benefit World War II veterans under fifty-five years of age who are purchasers of new homes.

What Are the Provisions?

In the event of death from any cause, the proceeds of the coverage will be credited to the account of the mortgagor. The amount of coverage is decided upon by the home builder, and is uniform for each home in the project. There are seven different schedules of coverage to choose from.

(Those home buyers who wish to have the entire unpaid balance of the mortgage cancelled if the mortgagor dies may supplement the G.I. Home Security Plan coverage with that of ABC's Mortgage Cancellation Plan.)

What Are the Terms?

No medical examination is necessary. Veterans who buy a home in a development covered by this service are automatically protected.

What Do Builders Think of It?

Outstanding home builders throughout the country have enthusiastically approved the G.I. Home Security Plan. Many feel that since the benefits are so great for such a low price, they will pay the costs themselves.

• WRITE FOR COMPLETE INFORMATION on how you can make the G.I. Home Security Plan available to your buyers. You will find it extremely practical, extremely simple in operation. Allied Building Credits, Inc., 2501 First National Bank Building, St. Paul 1, Minnesota.

Complete Instalment Note and Mortgage Services for the Building Industry.

ALLIED BUILDING CREDITS, INC.



OFFICES IN
PRINCIPAL
CITIES

Each Month

Weyerhaeuser Selection for August

THE HOUSE IT ADVERTISED MONTHLY IN
THE AMERICAN HOME MAGAZINE
Said to save time
2,500,000 Builders

THIS SELECTION CONTAINS THE FOLLOWING:

- A STORY OF RECENTLY ADVERTISED IN HOME MAGAZINE
- A NEW CONSTRUCTION PLAN, SPECIFICALLY DESIGNED FOR THE AMERICAN HOME MAGAZINE
- A BLUE PRINT, ARCHITECTURAL DRAWING, PLAN SET
- A BUILDER'S LIST OF MATERIALS
- A CONSTRUCTION LIST OF MATERIALS TO BE USED
- A BUILDER'S GUIDE

Remember to take your dealer this month, and your dealer will be ready to help you.

WEYERHAEUSER SALES COMPANY
SAY: YES TO A BETTER HOME

The New SMALL HOME
IS NOW ADDED TO OUR
WEYERHAEUSER
4-SQUARE HOME BUILDING SERVICE

THIS DISTINCTIVE 4-SQUARE HOME
Characterized as just what
CAN BE BUILT ON YOUR PLOT

MONEY'S WORTH

House...
NO. 4120

DESIGN NO. 4120
4-SQUARE HOME
BUILDER'S GUIDE

IN THE BUILDING SERVICE, THE Weyerhaeuser Selection
Offers the building service, the building service
That home owners can rely on to build a home
That is, a home that is built on the basis of a
plan that is built on the basis of a plan that is built
on the basis of a plan that is built on the basis of a plan
That will make "Quality" through the home owner
enjoy the "Quality" of the home for ever

Another HOME
FOR THE EVER GROWING WEYERHAEUSER
4-SQUARE HOME BUILDING SERVICE

A COMPLETE SERIES OF DELIGHTFUL HOMES

The Weyerhaeuser & Son's Home
Building Service makes complete
plans for every corner of ideal plans.
Shows the home that fits your home.
correct. All are engineered for every
corner of wisdom and modernism.

Design No. 4120
Four Rooms - One Story

Each month a new home is
selected and featured in
AMERICAN HOME or
BETTER HOMES & GARDENS
MAGAZINES.
ASK TO SEE THEM

A fresh new home and a complete new merchandising program built around that new home is furnished to dealers every month.

WEYERHAEUSER RELEASES A COMPLETE HOME PROGRAM

● **CONTRACTORS** who are familiar with the Weyerhaeuser 4-Square Home Building Service will be happy to learn that each month Weyerhaeuser releases a new, interesting house design.

This design, reproduced in full color, along with floor plans and brief descriptive detail, is sent to retail lumber dealers for inclusion in the plan division of their ever-growing Weyerhaeuser 4-Square Home Building Service.

This section contains scores of modern plans for modern homes. Each is the work of an outstanding architect, a specialist in small home design; each is engineered by Weyerhaeuser for sound, economical construction.

BUT THERE IS MORE

The next items of interest are working drawings, specifications, and material lists which are complete in every detail for every house. With the easy estimating guides included in the service it is a simple matter to quickly estimate the cost of any home.

AVAILABLE FOR YOUR USE

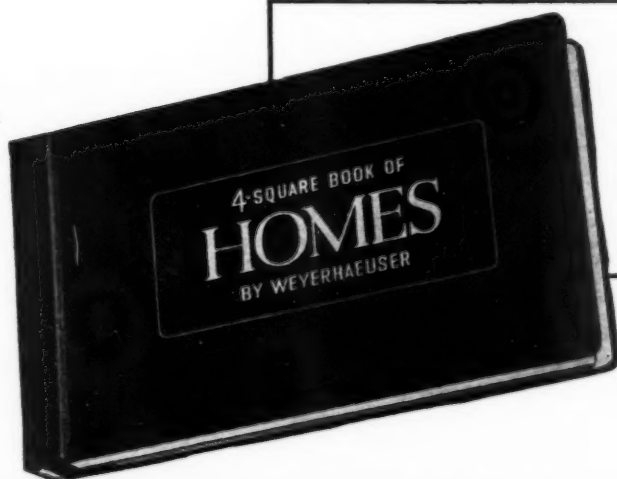
All of this material is available to you at the yards of Weyerhaeuser 4-Square lumber dealers. Your dealer will be glad to cooperate in helping you use this service in your business.

ADVERTISED TO MILLIONS

Each month, in one of the leading national shelter magazines, Weyerhaeuser is advertising the featured design, and also telling home planners about all the other designs of the service. There is a tremendous interest already evidenced in these homes. If your customers ask about these designs assure them that you can make them available. Your dealer will be happy to supply for your files a folder which describes each month's house.

KEEPING UP WITH THE NEW

This home building service sponsored by Weyerhaeuser is an ever-growing, expanding service. Each month a new design is added. This constant enrichment of the service should put contractors in position to offer the newest and best in the small home field.



The Encyclopedia of Home Information

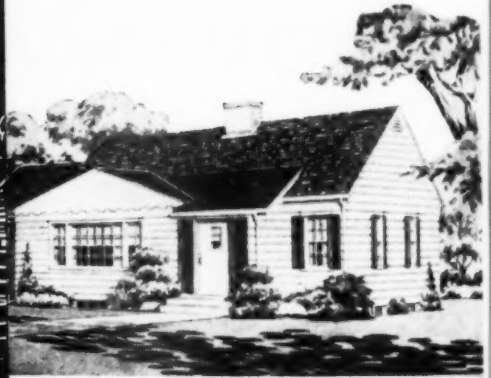
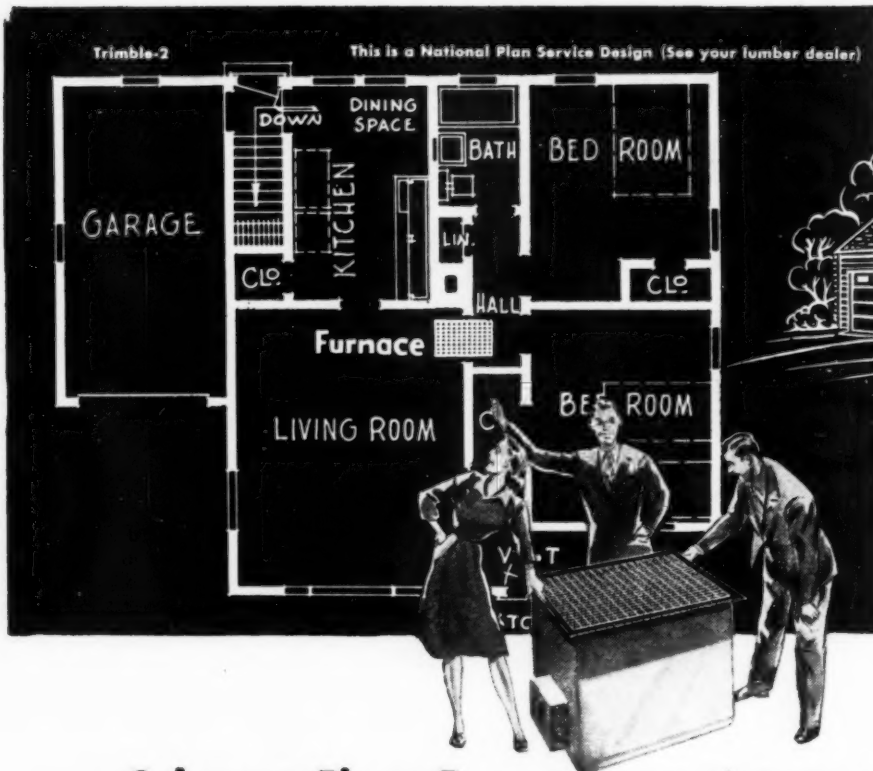
This big, loose-leaf book contains scores of modern house designs. A number of the houses are shown in full color. When you see this authoritative book you will agree that it surpasses anything yet developed for displaying homes and plans.

WEYERHAEUSER SALES COMPANY

FIRST NATIONAL BANK BUILDING • SAINT PAUL 1, MINN.

WEYERHAEUSER

4-SQUARE LUMBER and SERVICES



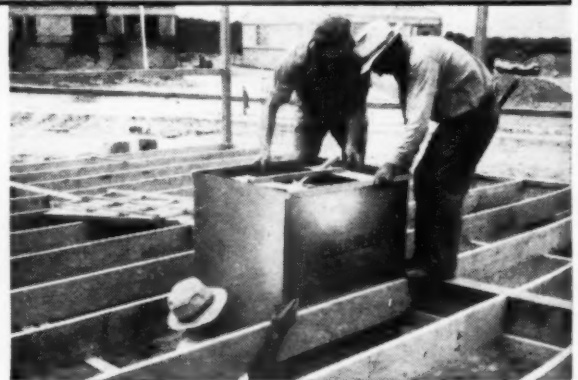
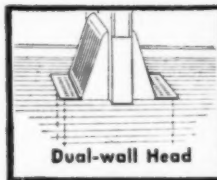
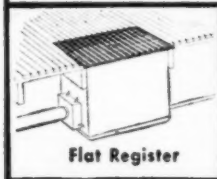
Here is how your one-story houses (like this typical, attractive small home by National Plan Service) can be built for less money without reducing quality: Use Coleman's revolutionary new Floor Furnace! Perfect heating that requires no ducts; no basement needed.

Coleman Floor Furnaces require no ducts; no basement HELPS YOU HOLD DOWN COSTS *2 Ways!*



Yes, this amazing furnace fits in any floor. It is an easy-to-install packaged heat plant, located in the floor with only the register showing. It comes complete, ready to install. Two men can install a Coleman Furnace in 3 to 4 hours. Furnace may be equipped with flat register or dual wall head. Burns clean gas, oil, or LP-gas. So whether you build in city, town or country, you can give your customers the advantages of clean, modern automatic heat with Coleman Floor Furnaces.

SEE HOW SIMPLE THE INSTALLATION IS:



1. Needs no basement... Yes, with Coleman's Floor Furnace, you can give your customers perfect heating satisfaction and still save the \$350 or more cost of a basement and the cost of expensive blower equipment.

2. No duct work required... Here's another way to save! One Coleman Floor Furnace installation gives perfect heat through 3, 4, or 5 rooms—and you save the cost of duct work and extra registers. Dual installations are practical, also. Thus at low cost you can have the sales advantage of clean, automatic heating in your houses. The Coleman Company will be glad to serve you as fast as furnaces can be made available.

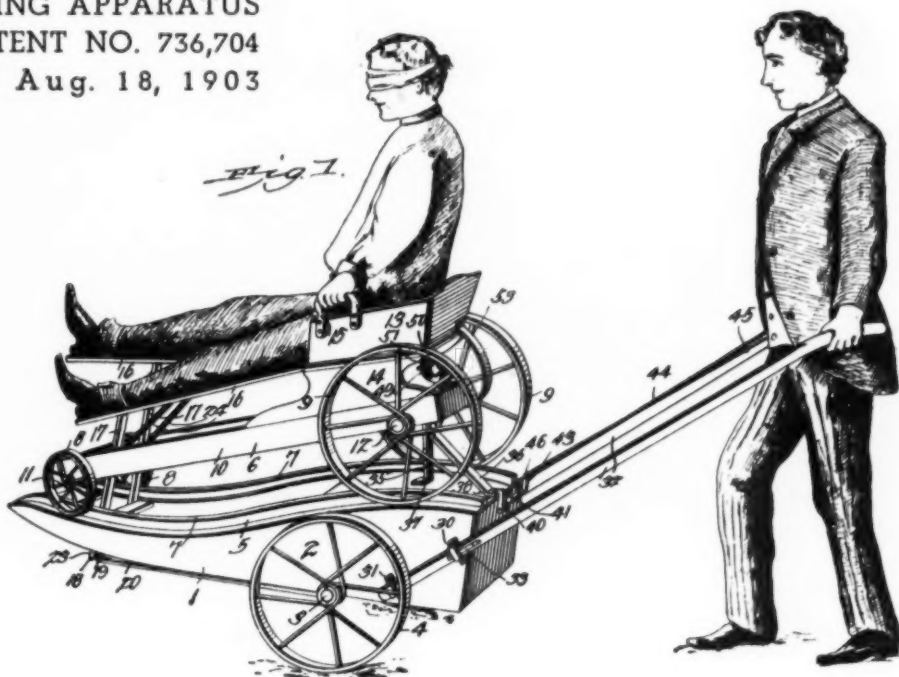
The Coleman Co., Inc., Dept. AB-55, Wichita, Kans., Philadelphia, Pa., Los Angeles, Calif.

AUTOMATIC

Coleman

HEATING

INITIATING APPARATUS
U.S. PATENT NO. 736,704
Issued Aug. 18, 1903

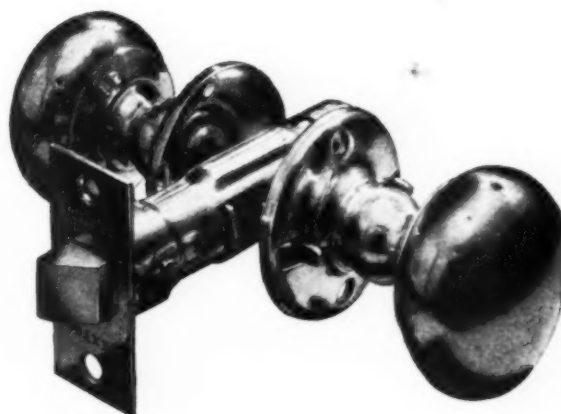


YOU'RE NEVER IN THE DARK

You know where you stand every minute when you install Dexter-Tubulars. You know the quality is right, because there's a written lifetime guarantee packed right in every box with every latch. You know they save you valuable installation time because Dexter-Tubulars eliminate all deep mortising and special fitting.

It takes no initiating to learn their advantages. With the handy help of the Dexter bit guide, just bore two holes. Insert the latch like a cartridge in a gun. The job's done — and done for life!

The Dexter dealer in your community will be glad to demonstrate their advantage. No obligation. It won't cost a penny. But it will show you how to save and make dollars.

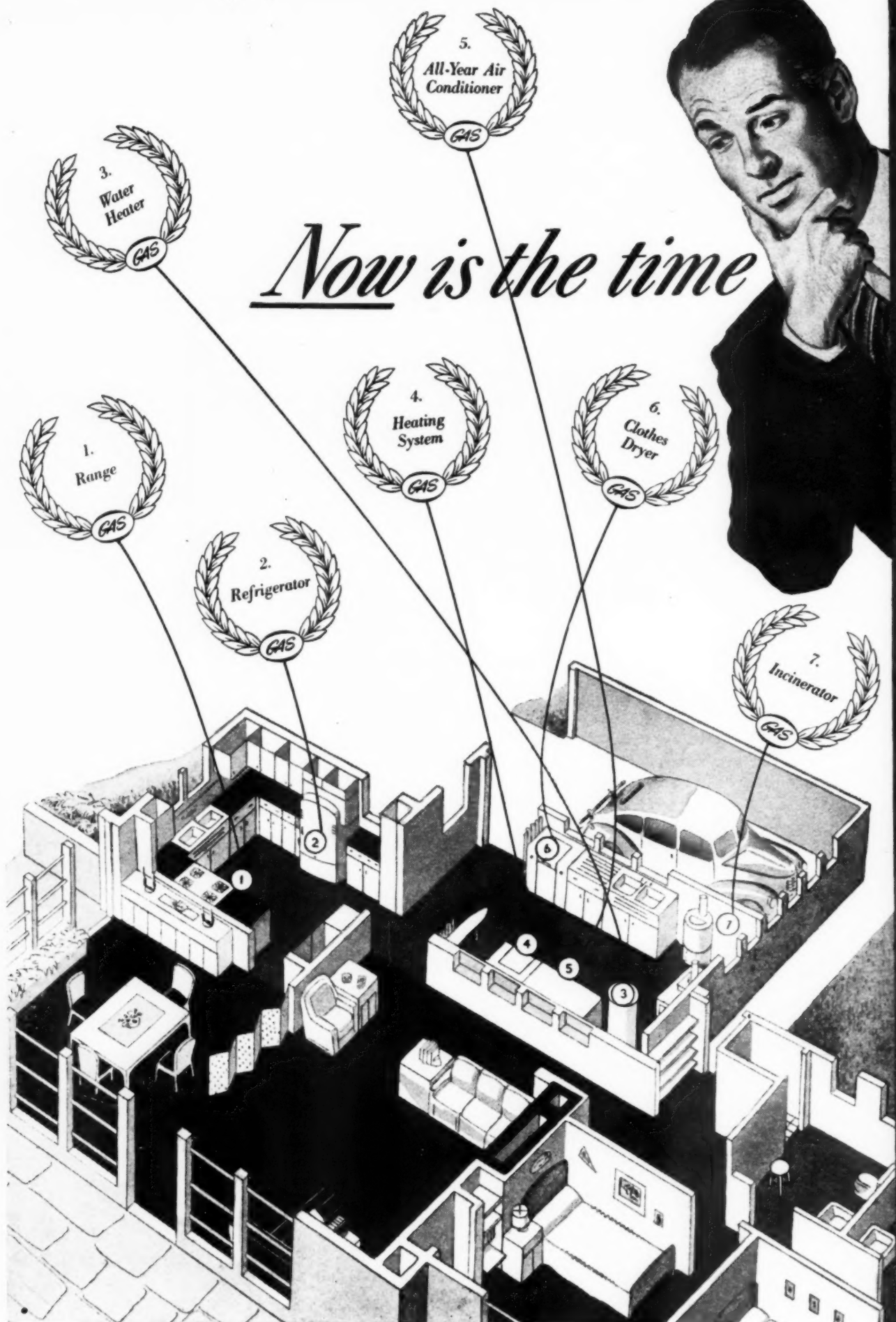


Catalog No. 121 1/2 A 122 Bedroom and Bath Set. Locking Rose inside, passed by emergency key outside. Solid wrought brass trim.

NATIONAL BRASS COMPANY, Mfrs.
Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR
AND SHELF HARDWARE





Even in these times—when you could sell a grass hut to an Eskimo or an igloo to a Hottentot—it pays to build houses people really want. Pays . . . not only in immediate sales . . . but in long term prestige.

That is why so many foresighted architects and builders are turning exclusively to the all-Gas home.

to LOOK

For Gas is the fuel people know and prefer. It is the trusted "servant" of 91,000,000 Americans in 10,000 communities, today. And modern Gas service—with postwar Gas appliances—promises even *greater* ease, comfort and efficiency, tomorrow.

to your Laurels!

Here are a few ways it adds to better living:

House heating with an automatic Gas furnace assures cozy warmth on the rawest winter day. Year-round Gas air-conditioning goes even farther — actually brings healthful comfort in every kind of weather. Hot water in abundance is provided for every need . . . with such economy and speed-of-recovery that it is eminently satisfactory to own both an automatic dishwasher and laundry. Silent Gas refrigeration keeps foods fresh for long periods—eliminates daily shopping trips. The automatically controlled Gas range prepares meals and turns itself off while the home-maker relaxes or attends to other duties. Incineration simplifies disposal of refuse. A Gas clothes-dryer makes laundering easy and rapid.

Yet with all this, Gas is economical! Both the initial cost of equipment and carrying charges are low. Mass production, due to volume demand, has resulted in high quality without high cost. And this superior quality *plus* freedom from mechanical wear means that appliances stay at their peak of efficiency for a much longer time. Add to that the well-known *economy of operation* and it is obvious why Gas is the best buy for any client's money.

Most important of all (from *your* point of view) . . . Gas appliances are designed compactly to save space. Space that often allows you to put in an extra room or cut down the outside dimensions. They reduce building costs further because they require only simple connections. And the attractive streamlined design of each of the seven Gas appliances (illustrated on the opposite page) is so recognizably *postwar* that they help sell a house on *sight!*

AMERICAN GAS ASSOCIATION



THE WONDER FLAME
THAT COOLS
AS WELL AS HEATS

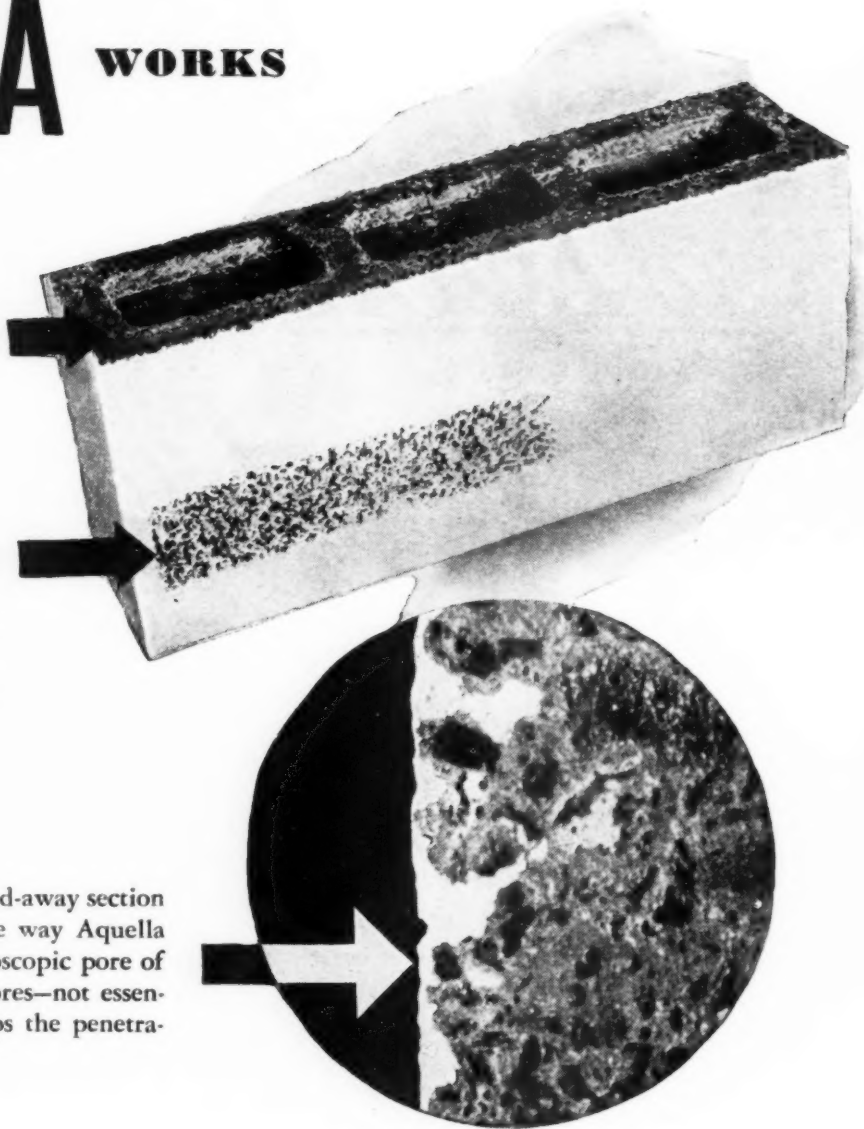
THE PRINCIPLE ON WHICH

AQUELLA WORKS

1 Here is an Aquellized concrete masonry unit filled with water. Naturally, there is no leakage.

2 But what happens if the Aquella surface coating is scraped off? To answer that, we scraped away this portion, and there's still no leakage. This may be slightly puzzling until you study the photograph of the third step...

3 The enlargement of a small, sawed-away section of the above block, which shows the way Aquella penetrates to fill and close each microscopic pore of the surface. It is the filling of the pores—not essentially the surface coating—which stops the penetration of water.



YOU SEE IT NOW—the principle on which Aquella works to make concrete masonry structures watertight!

The properly balanced ingredients of which Aquella is composed are so *finely ground* that when mixed with water, and scrubbed into the masonry, they penetrate and fill even

the minutest pores of the surface.

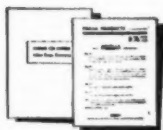
Then—contrary to the shrinkage phenomena of most waterproofing materials—Aquella continues to *expand* as it cures to set up a hard, firm bond which stops water leakage, dampness or seepage.

Consequently, even the presence of a hydrostatic head of water on the *unprotected side* has no effect whatsoever on the integrity of the Aquellized surface. Nor does it in any way affect Aquella's inherent property to resist capillary action or water seepage. Aquella is cheerfully bright in

its natural white finish...does not powder, peel or flake, and can be painted over with any color.

SPECIFY AQUELLA FOR CONCRETE, BRICK, LIGHT WEIGHT MASONRY UNITS, STUCCO OR CEMENT PLASTER.

Free from the organic binders, hygroscopic salts and stearates used in the making of ordinary water barriers, Aquella is an entirely new mineral surface coating which you can specify for watertightness inside or outside...above or below ground on all porous masonry surfaces.



FREE

Write today for your copies of "Aquella and Concrete Masonry Construction," and the "Key to Aquella Specification Types."



PRIMA PRODUCTS, INC.

DEPT. C,

10 EAST 40TH STREET

NEW YORK 16, N. Y.

Here's why ARMSTRONG'S INSULATING WOOL goes up fast—stays efficient



WITH Armstrong's Insulating Wool, you get a snug friction fit that both speeds up the job and gives it lasting insulation efficiency.

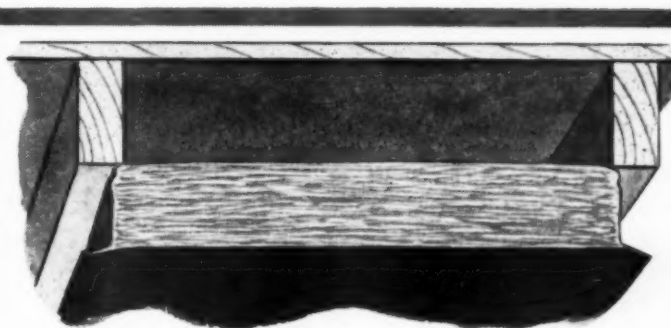
Batts and blankets of Armstrong's Insulating Wool are cut slightly oversize, so they fit tightly between the studs. The natural springiness of Fiberglas*, from which this insulation is made, holds the material firmly in place while being fastened. That makes it simple to nail down the flange, insuring a tight vapor seal. Light in weight (less than 3 oz. per bd. ft.) Armstrong's Insulating Wool is easy to lift and carry. Its tough, plastic-bound fibers don't crumble. Vapor-seal and breather papers completely envelope the insulation and protect it in handling.

The resilient friction fit of Armstrong's Insulating Wool also keeps it from sagging and settling. No heat-wasting gaps can develop under the eaves. And since this insulation can't rot or burn, a building insulated this way is more comfortable and economical to heat.

For samples and complete information, write to Armstrong Cork Company, Building Materials Div., 1610 Lime Street, Lancaster, Pa.

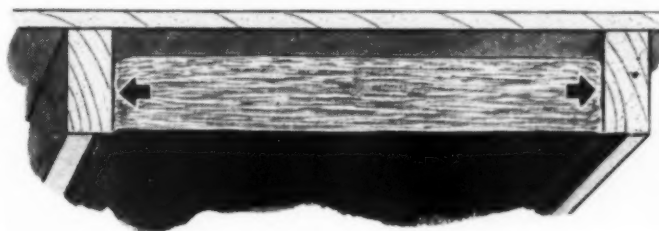


* T.-M. Reg. U. S. Pat. Off. Owens-Corning Fiberglas Corp.



1. BEFORE INSTALLATION.

The flexible glass fibers of Armstrong's Insulating Wool are held together by plastic binder. Batts and blankets are cut slightly wider than standard space between studs.



2. AFTER INSTALLATION.

Pressing this insulation into place compresses fibers slightly. Like millions of expansion springs, these fibers push against studs, holding insulation firmly in place.

Other Easy-to-Sell Armstrong Materials



TEMLOK** . . . the efficient, easy handling Armstrong fiberboard insulation, made in sheathing, lath, and deluxe interior finish panels, planks, and boards.



MONOWALL** . . . Armstrong's predecorated panel-board in brilliant plain colors, tile-designs, and streamline-designs for kitchens and bathrooms.

** Reg. U. S. Pat. Off.

ARMSTRONG'S BUILDING MATERIALS

TEMLOK • INSULATING WOOL • MONOWALL

"Never makes a sound!"

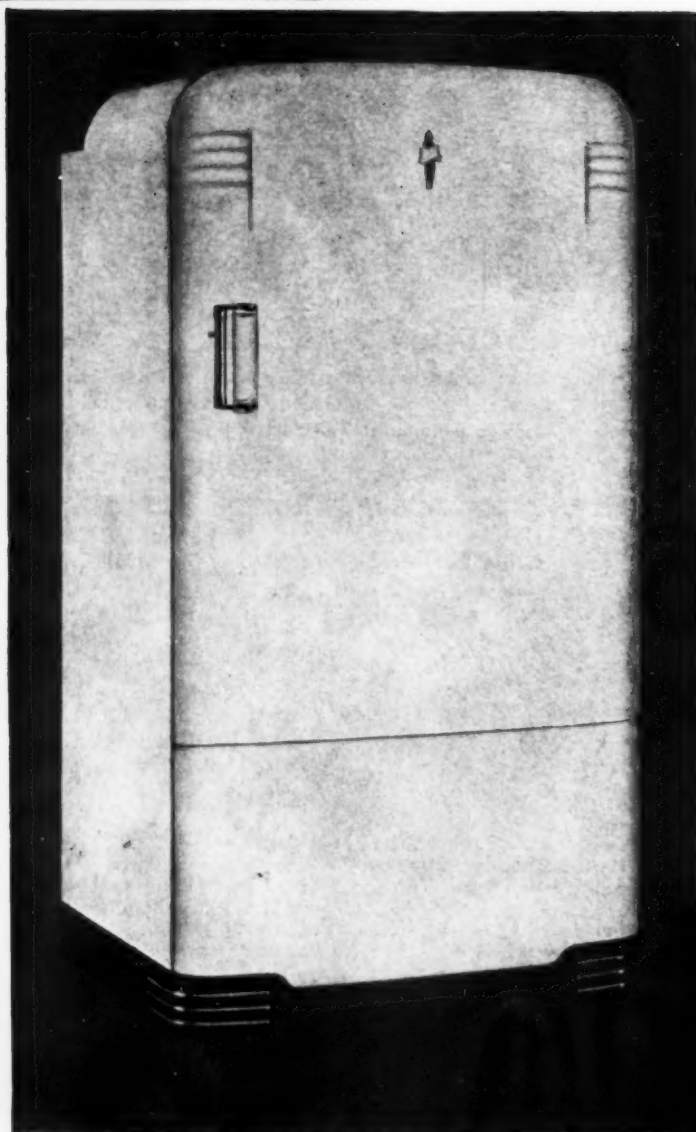


OWNERS



TENANTS

"Lasts longer, too!"



YOU'LL SATISFY BOTH TENANTS AND OWNERS WHEN YOU SPECIFY SERVEL

Everyone will approve your choice when you specify Servel Gas Refrigerators in the new apartment houses you design or build. For more than 2,000,000 users are enthusiastic about the permanent silence of this modern gas refrigerator. It never makes a sound, never annoys. Owners, too, find that, even after 10, 12 and 15 years, Servel keeps giving the same dependable service it did when new.

This unmatched performance is the result of Servel's amazingly simple, basically different method of operation. There are *no moving parts* in its freezing system. No motors, valves, pistons or pumps to get noisy or wear. A tiny gas flame circulates the refrigerant that produces constant cold and an abundance of sparkling ice cubes.

So decide now to include outlets for Gas Refrigeration in your current designs and construction work. Consult Sweet's Catalog for installation data. Or write today to Servel, Inc., Evansville 20, Ind.

Stays silent...lasts longer
Servel
 GAS REFRIGERATOR

"love at first sight"



That is the house they want, when they see it attractively decorated with P&L authoritative paint colors. These distinctive colors appeal to prospective home buyers, particularly to women — a case of "love at first sight"!

P&L distinctive colors are the result of years of experience with leading decorators and architects. They were selected only after practical test use in over a thousand homes. **They lift your houses above competition!**

This modern decoration — inside and out — costs no more than an ordinary paint job. In fact, as often happens,

easier working and better covering P&L materials **cut labor costs** because time is saved and fewer coats are required. Your painters also save the time of tedious tinting, mixing and experimenting, by using these outstanding colors right out of the can as they come. Annoying, costly "extras" are eliminated — and everybody is happy!

Painting specifications for low-cost, medium-priced and high-grade homes are yours for the asking.

Pratt & Lambert-Inc.,
80 Tonawanda Street,
Buffalo 7, N. Y.



PRATT & LAMBERT PAINT AND VARNISH



SPEED *small home construction* **WITH MEDCO**

With an eye to maximum speed and minimum costs, builders today use Medco High Early Strength Portland Cement to slash building time on small home construction. Used anywhere concrete is specified, Medco hardens in one day—one seventh the normal time for concrete to cure.

Look at the advantage for the small home builder . . . No time lost waiting for forms to be released . . . Use the same forms on a new job the next day. Builders report that in a great number of cases, they build on yesterday's pour. Use Medco for basements, floors, driveways, sidewalks, etc. Medco cures in 24 to 48 hours instead of the usual 168 to 240 hours. This means, hours of time saved. In winter, concrete is safe from freezing in a few hours . . . job progress is rapid.

Medco is another Medusa special cement, backed by Medusa's 54 years of manufacturing quality products. A helpful booklet, "Medco High Early Strength Cement" has been prepared for your convenience. Write for yours.

"FIFTY-FOUR YEARS OF CONCRETE PROGRESS"

MEDUSA PORTLAND CEMENT COMPANY

1002 Midland Building • Dept. "F" • Cleveland 15, Ohio



There's a Big Backlog of Store Remodeling Jobs

**GET YOUR SHARE
OF THIS PROFITABLE WORK
BY GOING AFTER IT NOW!**

Now is the time for you to cash in on the trend toward all-out modernization. Merchants are eager to remodel their store fronts and interiors. They know what this means in new sales appeal and profit-making possibilities. And our running program of advertising in twenty-one leading retail magazines keeps reminding them of this subject. Our ads are constantly stressing, to merchants in your territory, how modernizing—inside and out—with Pittsburgh Glass and Pittco Store Front Metal attracts more buyers, sells more merchandise, builds bigger profits for them.

Store owners know about Pittsburgh Glass and Pittco Store Front Metal through this program and other hard-hitting promotion effort on our part. They know that Pittsburgh Products lead the field. Thousands of successful installations in all parts of the country have proved their effectiveness and superiority. So *your* job of selling is made easier. Furthermore, you can offer your prospects convenient terms of payment, should they wish them, through the Pittsburgh Time Payment Plan.

Line up your "prospect list" and cultivate it thoroughly. Right now, send this convenient coupon for your free copy of our new booklet containing data and photographs of a large variety of Pittsburgh Glass and Pittco Store Front Metal installations. It will be a big help to you.

STORES LIKE THESE in Atlanta, Georgia, are a striking example of how Pittsburgh Glass creates modern, smart-looking exteriors which stop passers-by and invite them to enter. Merchants are keenly alive to modernization advantages—and that means profitable work for you.
Architects: W. Emil Forman—Samuel Feingersch.



**"PITTSBURGH"
STORE FRONTS
AND INTERIORS**



"PITTSBURGH" stands for Quality Glass and Paint

Pittsburgh Plate Glass Company
2401-6 Grant Building, Pittsburgh 10, Pa.

Please send me, without obligation, your new illustrated booklet.
"How Eye-Appeal—Inside and Out—Increases Retail Sales."

Name.....

Address.....

City..... State.....

PITTSBURGH PLATE GLASS COMPANY

Douglas Fir Doors are being precision-produced for America's critical housing needs

RECONVERSION HOUSING NOW REQUIRES MOST OF THE CURRENT PRODUCTION

TODAY'S urgent reconversion housing needs—plus the critical shortage of shop lumber from which stock doors are made—has naturally reduced the number of doors available for inventories or for general building.

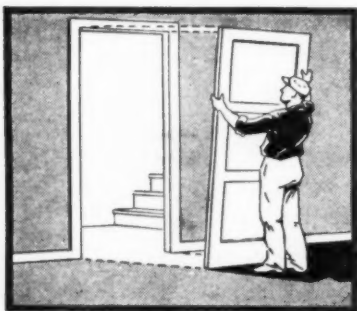
been overcome — substantial additional quantities of durable Douglas fir doors will be available.

available. They provide the biggest advance in stock door values in a decade. They'll save time and labor on the job, improve the appearance of every installation.

However, once the present raw material shortages have

Study the Pre-fit and Factri-fit features which will be

Every door will be sturdy, attractive, durable — made to exacting standards by modern precision methods.



Pre-Fit

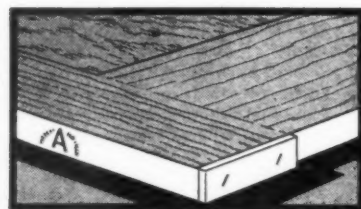
Douglas fir doors will be available pre-fit to exact book size . . . ready to hang without on-the-job sawing and fitting.

Pre-Sealed

Douglas fir doors will be available pre-sealed . . . a feature which improves dimensional stability, reduces moisture absorption, and eliminates the need for one prime coat.

Factri-Fit

Douglas fir doors will also be available completely machined — not only pre-fit, but gained for hinges and mortised or bored for locks as well. Doors will be grade-marked, as in the past, for ease in specification and ordering. They'll be better doors in every way.



Douglas fir Pre-fit and Factri-fit doors will be shipped with protecting scuff-strips, of course, so that precision-cut corners will not be marred in handling.



F I R D O O R

**Douglas Fir
DOORS**



I N S T I T U T E

Tacoma 2, Washington

The National Institute of Fir Door Manufacturers

A NEW automatic water heater

TO MEET 1946 BUILDING AND
MODERNIZATION BUDGETS...

• Eagerly awaited since its announcement several months ago, the new Bryant Model 105 Automatic Storage Water Heater is now in production. This popular-priced unit, because of its many distinctive features, will set new standards of quality and performance while serving America's new and modernized homes.

Attractive in its gleaming white finish, the Model 105 is completely automatic, thermostatically controlled. It is rigidly constructed for long life and dependable operation, super-insulated for heating efficiency. The "Bryalite" Automatic Safety Pilot, a Bryant engineering achievement, provides easy, safe lighting . . . shuts off the gas to burner should the pilot light go out. The specially-designed stainless steel burner operates quietly, resists corrosion and stoppage from dust or dirt. Segmental baffles inside the heating section utilize *all* the heat by directing it against the heating surface.

These and many other features make the Model 105 Automatic Water Heater highly desired equipment in any new or modernized home . . . a proudly-presented newcomer to the famous line of Bryant automatic gas-fired heating equipment.

BRYANT HEATER COMPANY
17825 St. Clair Ave., Cleveland 10, Ohio
One of the Dresser Industries

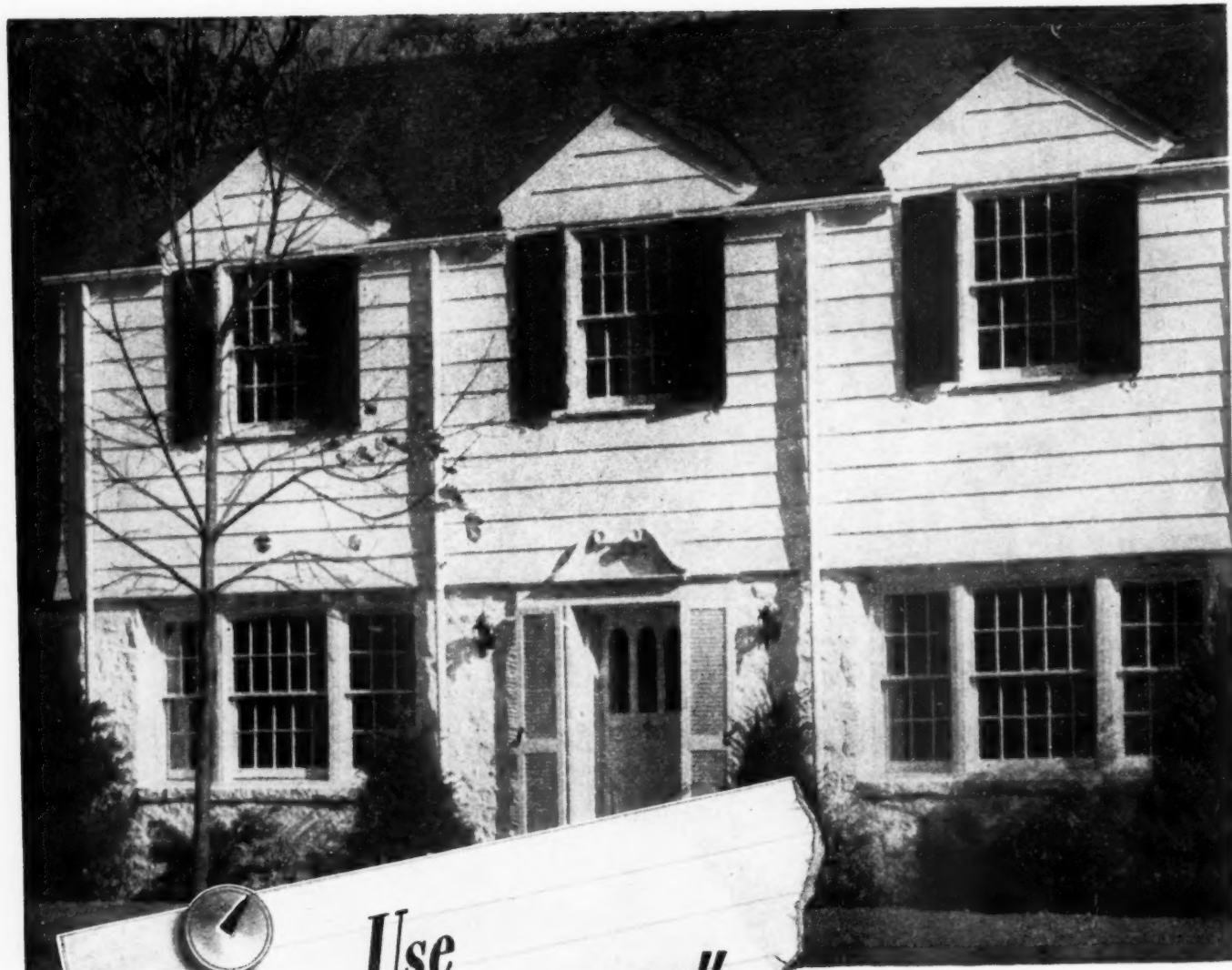


bryant
GAS
HEATING



LET THE PUP BE FURNACE MAN

The most complete line of gas heating equipment in the nation!



Use
"PENNVERNON"
 not just "window glass"

● **THE UNIFORM** high quality of Pennvern Window Glass makes it the ideal choice wherever sheet glass is required. Pennvern's fine finish and freedom from distortion are sure to satisfy the most critical customer.

Use Pennvern . . . the window glass that has made a name for itself!



PENNVERNON

Window Glass



"PITTSBURGH" stands for Quality Glass and Paint

PITTSBURGH PLATE GLASS COMPANY

TIMELY AID FOR YOU

in these *Balsam-Wool* data sheets!



• Reconversion shortages emphasize the need for building additions to existing structures in order to provide more living space. The two Balsam-Wool data sheets pictured here deal with the important matter of insulating and ventilating such additions. These sheets are part of a series—comprising more than 30—containing hard-to-get information on insulation application. The entire series is yours for the asking—without obligation—just mail the coupon!

Balsam-Wool APPLICATION DATA SHEET SEC. B No. 5

INSULATING AND VENTILATING AN ADDITION WITH A FLAT ROOF

2"x4" FLAT 16" O.C.

LOOKOUT

NU-WOOD TILE

DOUBLE-THICK BALSAM-WOOL

CORNICE DETAIL
SCALE 1/8" = 1"

WHEN a room addition has a flat roof, the need for ventilation between the insulation and the roof is probably more important than in pitched roof construction. Adequate ventilation of flat roof construction is especially desirable during summer months to flush out the hot air which normally accumulates under the roof. During the winter months, ventilation will minimize the possibility of condensation on the underside of the roof construction.

Balsam-Wool APPLICATION DATA SHEET SEC. B No. 4

INSULATING AND VENTILATING AN ADDITION WITH PITCHED ROOF

LOUVER

DOUBLE-THICK BALSAM-WOOL

STANDARD BALSAM-WOOL

SCREENED OPENING EACH SIDE FOR VENTILATION

WALL SECTION
SCALE 1/8" = 1"

THE problem of heating a room or wing addition is greatly minimized when insulated with Balsam-Wool Sealed Insulation. The balanced insulation efficiency of a wall treated with Standard Balsam-Wool and floor and ceiling with Double-Thick Balsam-Wool means a larger fuel savings and greater comfort both winter and summer. In this construction the coefficient of heat transmission "U" is 12 for walls, .094 for the floor, .11 for the ceiling construction only, or .092 for the combined ceiling and roof construction. These "U" factors are calculated as prescribed in the Guide of the A. S. H. & V. E.

To assure superior performance Balsam-Wool insulation should be carefully applied with the edges and ends of the blanket sealed to the framing members. It is also important to ventilate the attic space and the unexcavated space under the floor. The free open area of the screened gable wall louver should have a ratio of approximately 1/4 square inch for each square foot of attic floor area. The area of the screened openings under each eave should equal the open area of the wall louver.

WOOD CONVERSION COMPANY
First National Bank Building
Saint Paul, Minnesota
Products of Weyerhaeuser 20-8089

- High Thermal Efficiency
- Built for Permanence
- Non-Settling
- Flame-Proof
- Wind-Proof
- Moisture-Proof

Balsam-Wool

SEALED INSULATION

BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD

WOOD CONVERSION COMPANY

Dept. 119-10, First National Bank Building
St. Paul 1, Minnesota

Please send me set of Balsam-Wool Application Data Sheets.

NAME

ADDRESS

CITY STATE



Ceco Screens may be secured full height or half height in sliding or fixed type installations. They can be furnished to meet any job condition.



Metal Frame Screens?

Builders from all parts of the country have told us that they like to use Ceco Metal Frame Screens on the homes they build. Below are their reasons boiled down to six outstanding advantages. Here's proof why Ceco Metal Frame Screens should be used:

- 1** They help sell houses because customers like—
 - A** Their trim appearance.
 - B** The ease with which they are put up and taken down.
- 2** Standard types and styles for every purpose—for wood or metal windows—new or replacements.
- 3** Cost no more than ordinary screens . . . factory finished . . . no on-the-job painting, trimming or fitting.
- 4** Will not warp, shrink, swell, twist or rot.
- 5** Custom-built from (1) *Steel*, (2) *Bronze*, or (3) *Aluminum*.
- 6** Wired with rust-proof, clear vision screen cloth.

Call Ceco for the finest metal frame screens. Our engineers will be glad to assist you.

Partial List of other Ceco Products: Metal Windows • Metal Weatherstrips • Metal Lath • Steel Joists and Roof Deck • Meyer Steelforms • Reinforcing Steel Bars

CECO STEEL PRODUCTS CORPORATION

GENERAL OFFICES: 5701 West 26th Street, Chicago 50, Illinois

Dealers, Offices, Warehouses and Fabricating Plants in Principal Cities

In construction products **CECO ENGINEERING** *makes the big difference*

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oe in-
y can
meet
on.



"Why ask for trouble when a few dollars puts

THREE HINGES ON EVERY DOOR"



More and more builders, architects and general contractors are discovering the real economy of *three hinges on every door*... especially during these days of critical materials. They are learning that the two or three dollars additional hinge expense per home is hardly a fraction of the cost of repairing one warped door later on.

When you put three hinges on *every* door you are guarding against warping at the jamb, helping to keep latches and locks clicking to a perfect fit, summer and winter.

And think how your buyers will appreciate this visible proof of good construction, as supply catches up

with demand... how it will help convince them that you are offering a truly well-built house, even down to the little things.

Build all your homes with *three* hinges to a door, whether the plans call for thick doors or thin ones, paneled or flush type. The Stanley Works, New Britain, Connecticut.

STANLEY

Trade Mark

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

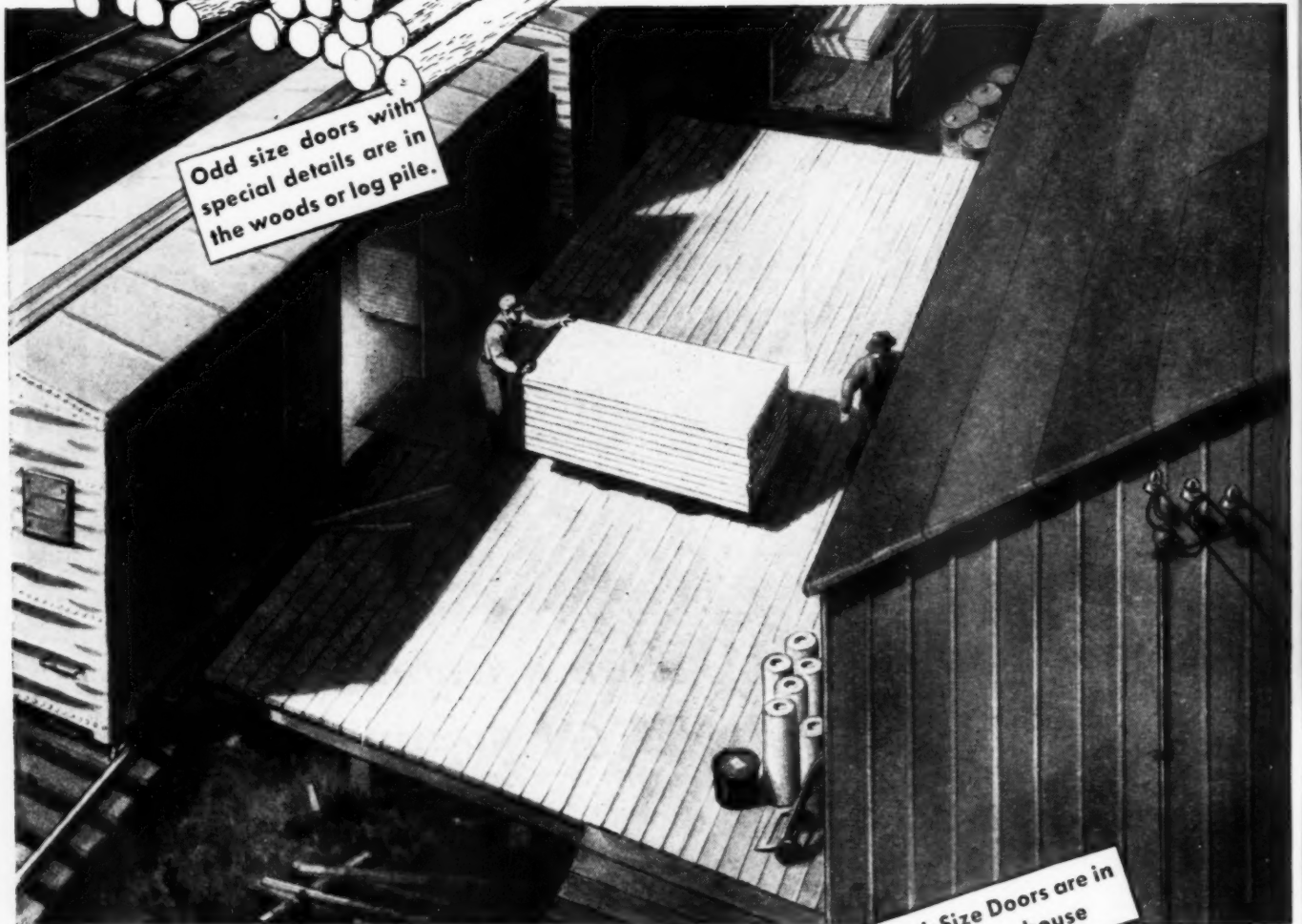


REMEMBER . . .

THREE HINGES TO A DOOR

nce

In the Woods or in the Warehouse?



CUSTOM made doors can't be cut and fashioned until specifications are received.

Odd sizes and details slow down production, require additional labor — waste materials. Stock sizes on the other hand permit maximum continuous production, make the most use of man-hours and machines — provide stocks at our warehouse — ready where you want them, when you want them . . . Since the call today is for production and more production Roddis is limiting itself to stock sizes both in doors and plywood. This policy means more Roddiscraft doors and more Roddiscraft plywood for our customers — a continuation of our 55 year old policy of giving our customers what they want.

Roddiscraft

Roddis Lumber & Veneer Co.

MARSHFIELD, WISCONSIN

Roddiscraft WAREHOUSES

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CHICAGO 8, ILL., 1440 W. Cermak Road	Review & Greenpoint Ave.
CINCINNATI 2, OHIO, 457 E. Sixth St.	MARSHFIELD, WISCONSIN
DALLAS, TEXAS, 2615 Latimer Street	MILWAUKEE 8, WIS., 4601 W. State St.
DETROIT, MICH., 11855 E. Jefferson Ave.	NEW YORK CITY 18, N. Y., 515 W. 36th St.
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DEALERS IN ALL PRINCIPAL CITIES

THE NEW IMPROVED thrush

PROVED IN
YEARS OF
SERVICE

THRUSH FLOW
CONTROL VALVE
PAT. NO. 19873

New MANUAL
ADJUSTMENT

EXCLUSIVE
PATENTED
FEATURE
VENTS BELOW SEAT

FLOW CONTROL VALVES

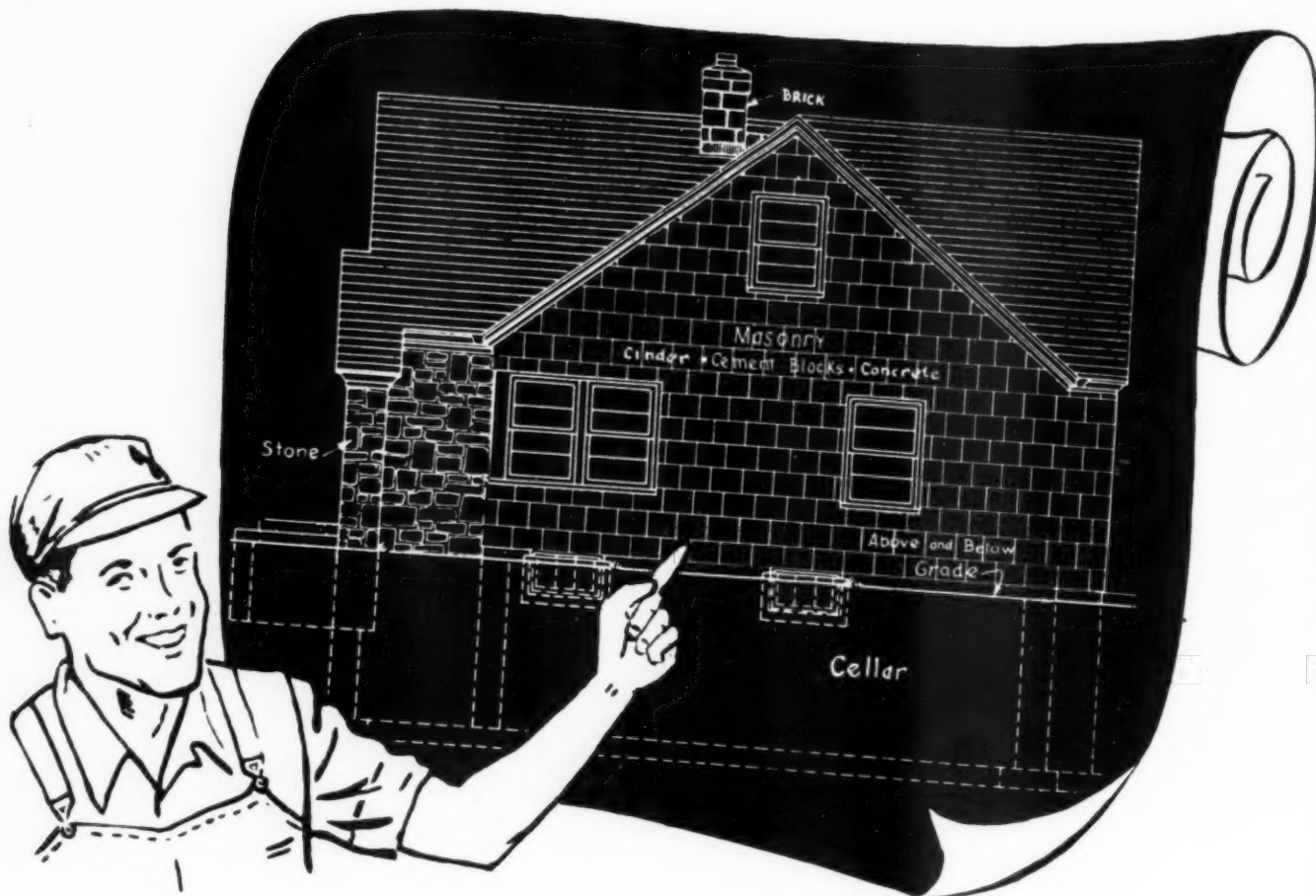
for
AUTOMATICALLY FIRED, FORCED CIRCULATING
Hot Water Heat!

THE THRUSH Flow Control Valve has proved its dependability and fine quality through years of service. Now it is better than ever, with the convenient Manual Control as an added feature. This, plus the exclusive, patented vent below the seat which eliminates leakage makes it the finest flow control valve on the market, bar none . . . and yet it is lower in cost than competitive valves! It is designed for operation with Thrush Water Circulator to control the circulation and prevent wasteful overheating in automatic, forced circulating hot water heating systems. *It can't stick.* Manual control does not interfere with normal operation. Neat in appearance, easy to install, takes the place of a tee. Ask your Wholesaler or write for more information. Address Dept. G-10

H. A. THRUSH & COMPANY · PERU, INDIANA



Summer. Winter. Hot Water



Some quick facts about KAY-TITE waterproofing

STOPS WATER LIKE A DUCK'S BACK



The waterproofing principles of Mother Nature have been adapted to home use in Kay-Tite. America's

No. 1 GUARANTEED masonry waterproofing. Kay-Tite is composed of finely ground, inorganic powders, and, when applied like paint, completely waterproofs walls by sealing the pores of all masonry surfaces. One coat does the trick, above or below grade, inside or out... depending upon porosity of the surface.

KAY-TITE HAS MANY USES



Job-proven by engineers, builders, painters, masons and home owners, Kay-Tite will lastingly waterproof cellar walls and floors, cement and cinder blocks, brick, stucco,

unglazed tile and rough masonry. Swimming pools use it to lock water in, so it must be effective! Our research engineers daily find new fields to conquer!

IT ADDS TO YOUR PRESTIGE

Waterproofed homes and buildings always stay in better condition, and builders who consider quality first are building their own good reputations for years to come. Kay-Tite is dependable waterproofing.

SO EASY — ANYONE CAN APPLY KAY-TITE Waterproofing



Professional mason or homeowner, it's easy as pie to apply! Mixed with water to a creamy thick

ness, one gallon will waterproof 100 to 150 square feet. All you need is a stiff fibre brush to apply it! Kay-Tite can also be sprayed on. Simple instructions on label tell all!

KAY-TITE Co., West Orange, N. J. AB

Please send me the name of my nearest dealer.

NAME _____

ADDRESS _____

CITY _____ STATE _____



KAY-TITE... AMERICA'S NO. 1 WATERPROOFING

KAY-TITE COMPANY, WEST ORANGE, N. J.

No Collisions in this Kitchen!

The incoming groceries will never collide with the out-rushing housewife—in this well-planned kitchen!

The well-placed doors of Ponderosa Pine take care of that—effectively separating the service entrance from the dining room entrance, and helping to divide the kitchen into two efficient work areas.

You can be generous with doors—and windows, too—when you choose stock designs of Ponderosa Pine. At prices that fit into the most modest building budget, they place in your hands the means of making homes more convenient and more comfortable.

"Today's Idea House"—new 32-page Ponderosa Pine idea book—contains page after page of illustrations, showing how Ponderosa Pine doors and windows can create more functionally effective and more interesting interiors. You'll want a copy for your files—and it is yours for the asking. Just mail the coupon.



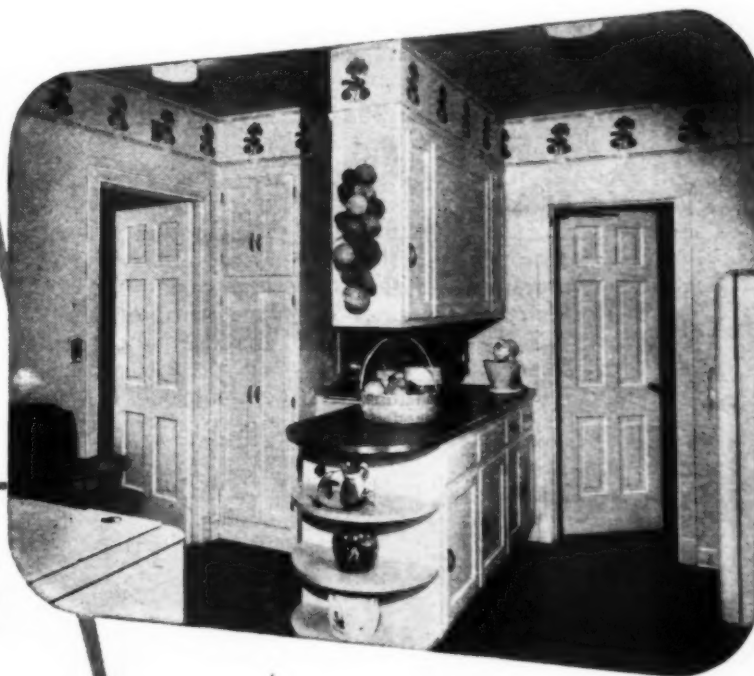
Because of its smooth grain and even surface texture, Ponderosa Pine lends itself to practically any type of surface treatment. Takes paint or varnish beautifully.

The Best is Yours with...

Ponderosa Pine

WOODWORK

"Today's Idea House" treats doors and windows functionally—in terms of what they can do to make living more convenient and more comfortable. Send today for this booklet—your copy is waiting.



Ponderosa Pine Woodwork
Dept. OAB-10, 111 West Washington St.
Chicago 2, Illinois

Please send me a free copy of "Today's Idea House."

Name

Address

City Zone State

**These Grade Trade - Marks
on Douglas Fir Plywood
mean that you can
depend upon uniform
quality!**

EXT. - D.F.P.A.



PLYPANEL D.F.P.A.



EXTERIOR-TYPE

EXTERIOR-TYPE plywood is made with completely waterproof synthetic resin binder especially for permanent exposure to weather and water. It is widely used for building exteriors, for outdoor signs, for railroad car siding, and in all phases of marine construction.

PLYSCORD

PLYSCORD is an unsanded utility panel of unusual rigidity, made to withstand the rigorous service demanded of wall and roof sheathing and of sub-flooring.

PLYWALL

PLYWALL is the grade of interior-type plywood made for use where only one side is exposed, as in wall paneling. It is suitable for most stained finishes, for painting or papering.

PLYFORM

PLYFORM is the special concrete-form grade of Douglas fir plywood—a quality grade manufactured with highly water-resistant glues and intended for multiple re-use in form construction.

PLYPANEL

PLYPANEL is the grade of interior-type plywood made especially for high quality interior work on walls, ceilings, for booth partitions, cabinet doors and similar uses.

Rigid Inspection and Testing Maintain Douglas Fir Plywood Standards

All Douglas fir plywood bearing the "grade trade-marks" shown above are manufactured in accordance with the rigid performance standards in the industry's Commercial Standard, CS 45-45. Conformity to those standards is maintained vigilantly under the continued scrutiny of the

Douglas Fir Plywood Association inspectors. Regular testing of glue-line quality at the Association laboratory, involving over 100,000 individual test samples annually, assures the user and specifier of high uniform quality, not only in appearance but also in glue-line performance.

Substantial Production Now Allocated to Veterans' Housing

Allocation of plywood to meet the needs of the Reconversion Housing Program means that a large proportion of the Douglas fir plywood industry's production must go to housing contractors, stock cabinet manufacturers, prefabricators and distributors.

Naturally, the supply situation for all other industrial and construction uses is temporarily acute.

It is a fact, however, that more plywood is being produced today than

in pre-war years. So once the present overwhelming demand has been met, an increased amount will be available.

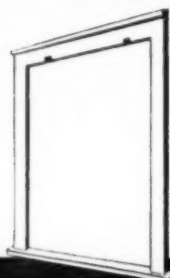
Anticipate your needs as far in advance as possible — and discuss them with your regular source of supply.

DOUGLAS FIR PLYWOOD ASSOCIATION



TACOMA 2, WASHINGTON

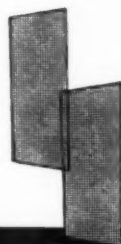
Complete FOR EASY SELLING



Complete factory
finished and fitted
outside trim



Complete metal
casement window,
glazed and bedded



Complete with
inside attached metal-
frame screens



Complete with self-
ventilating metal-
frame storm sash



MESKER "American Home" METAL WINDOWS

With this new Mesker development, windows become a fast-moving stock item for the dealer-distributor and an easily-figured fixed cost for the builder. Because they come complete with all outside trim, ready to set in the rough buck

opening, contractors report savings up to 65% in total installation costs. Here's the way to better houses at lower cost...use *complete* "American Home" Metal Windows throughout. Mail coupon for descriptive folder and installation details.

—only 5 minutes to install!

MESKER

METAL WINDOWS

MESKER BROTHERS, AB 106, 421 S. Seventh St., St. Louis 2, Mo.
Please send your American Home Metal Window folder and installation details.

Dealer _____

Address _____

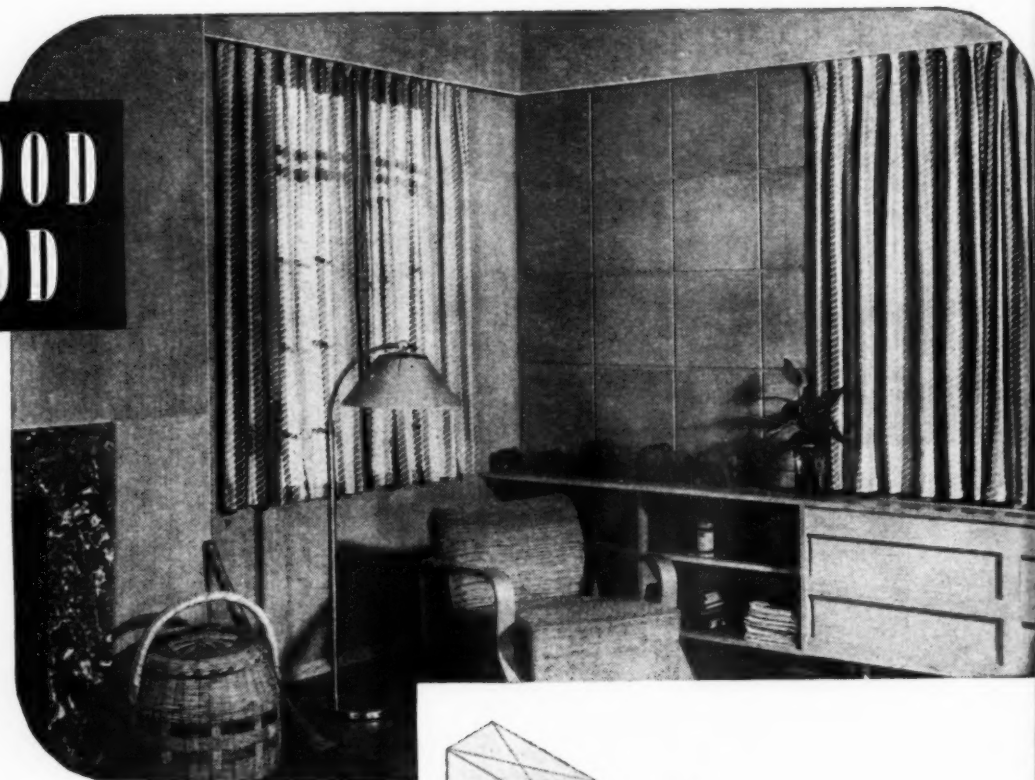
City _____ State _____

How to Create Custom-Built Panel Effects...

with

WELDWOOD PLYWOOD

This living room is finished in Oak Weldwood. Note how the recessed-joint paneling treatment lends extra character to the walls.



You may be surprised at the number of distinctive and original wall-panel and joint effects which can be constructed from Weldwood Plywood.

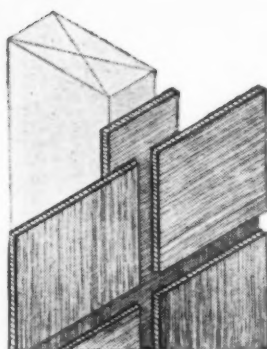
Here indeed is a material that enables you to cater to your clients' individual tastes and special requirements.

Prices, too, are within modest budgets because none of these handsome decorative effects requires prefabrication. All can be created by carpenters right on the job.

You'll find a fund of valuable construction ideas and detailed drawings, in addition to those shown here, in the new Weldwood Application Booklet.

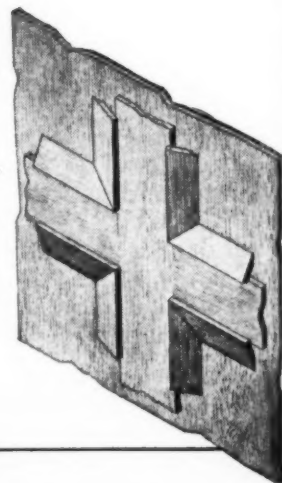
This booklet also contains suggestions for finishing, furring, installing corners, erecting walls and ceiling panels, together with numerous photographs of modern Weldwood interiors. Send for your free copy of this booklet today.

At the present time, Weldwood Plywood is available only in limited quantities. But we expect this condition will improve soon.



← Showing detail of recessed-joint construction.

Detail of Stile and Rail panel effect. (These suggestions are but two of many shown in the Weldwood Application Booklet.)



PLASTICS and WOOD WELDED for GOOD

Waterproof Weldwood for exterior use is bonded with phenol formaldehyde synthetic resin. Other types of water-resistant Weldwood for interior applications are manufactured with extended urea resins and other approved bonding agents.

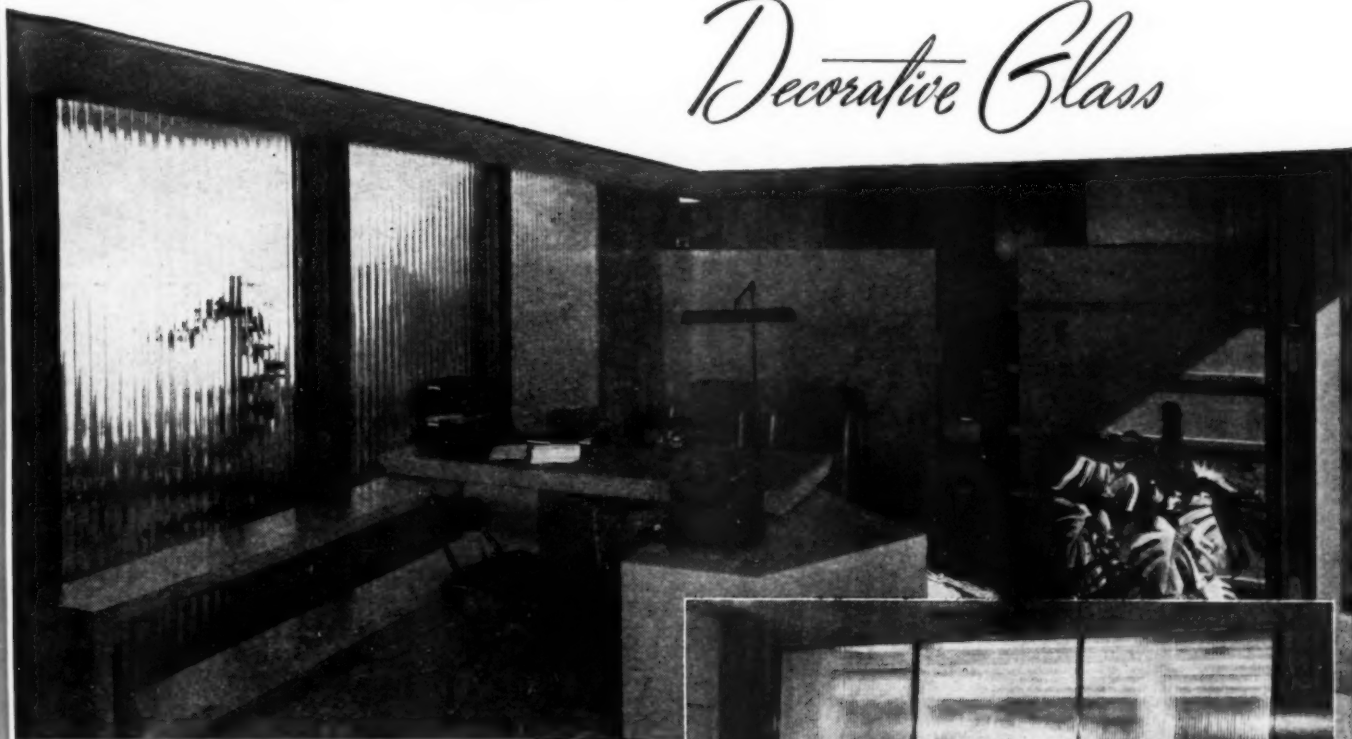
Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Newark, New York, Oakland, Philadelphia, Pittsburgh, Rochester, San Francisco, Seattle, Houston, Also U. S. Mengel Plywoods, Inc. distributing units in Atlanta, Jacksonville, Louisville, New Orleans, Houston, St. Louis. In Canada: United States Plywood Canada, Limited, Toronto. Send inquiries to nearest point.

Weldwood Plywood

Weldwood Plywood and Mengel Flush Doors are products of
UNITED STATES PLYWOOD CORPORATION **THE MENGEL COMPANY, INCORPORATED**
 New York 18, N. Y. Louisville 1, Ky.

Unlimited design possibilities . . . with

Decorative Glass

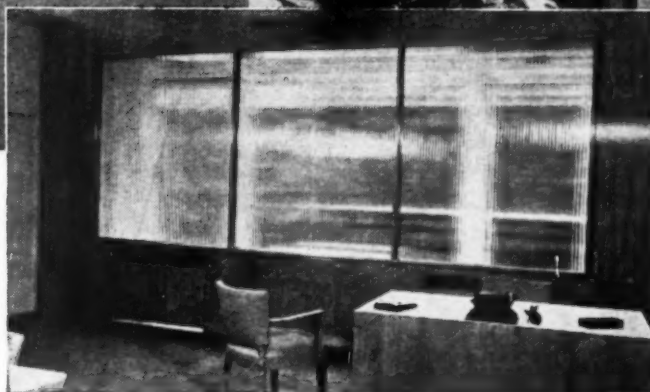


Architect: Henry B. Harrison



Above: Wall of clear Louvrex lets in abundant daylight and adds distinction to the modern design of Structon's offices in Los Angeles.

Right: To conceal an undesirable view of a court, and to create a sparkling background, clear Flutex was chosen for the windows in Bernhard Uhlman offices.



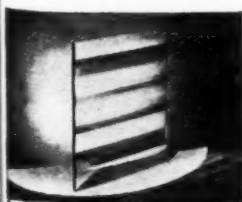
Designer: S. S. Silver & Co., Inc.

As a material, Decorative Glass is unique. Its design potential is enormous. Alone or in combination, it offers the architect or designer the versatility found in no other medium. Decorative Glass combines the cleanliness and sparkle of glass with distinctive beauty. It is durable, weather-resisting, utilitarian. It creates an effect of luxury even when used for purely functional purposes.

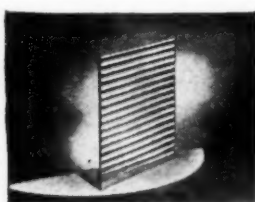
More than 20 patterns are made by the Blue Ridge Glass Corporation, Kingsport, Tennessee, and sold by L·O·F glass distributors. These patterns may be *Securitized* to stand great thermal and physical shock, and may be Satinol-finished or frosted to provide complete privacy yet transmit light. Blue Ridge Sales Division, Libbey-Owens-Ford Glass Company, 88106 Nicholas Building, Toledo 3, Ohio.

"Design it with one of the 5 EX's"

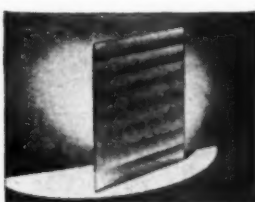
LOUVREX



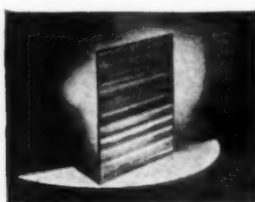
LINEX



FLUTEX



STYLEX



DOUBLEX



BLUE RIDGE *Decorative* GLASS

FOR SOFT, DIFFUSED LIGHT • SMART DECORATION • COMPLETE PRIVACY



FOR SIDING THAT DOESN'T BLEED THROUGH...

SPECIFY



Arkansas Soft Pine

Protect your paint jobs against this "time bomb" trouble, with Arkansas Soft Pine siding... the siding that can take it in Texas summers, Maine winters or corn-belt hot spells.

HERE'S WHY:

There's nothing in the wood to bleed through paint, because Arkansas Soft Pine is free from pitch. This minimizes paint deterioration and eliminates troublesome discoloration.

Primers penetrate the resin-free soft texture of Arkansas Soft Pine... primer and wood fibre become integral. Intermediate and finish coats are brushed on the wood itself... not merely carried on the surface of the primer.

Again, freedom from pitch spells soft texture that nails without splitting; clean cut, mitered joints at all corners; bevel siding with no unsightly splits; mouldings and cornice assemblies that stay put... still more protection for paint.

Arkansas Soft Pine siding comes in standard patterns of drop, bevel and colonial. See it at your lumber dealer's along with framing lumber and Satin-like Interior Trim of this soft textured, easy-to-work material... the tested, trade marked, all-purpose wood for building better homes.

For painting and finishing instructions, how to specify, grades to use, stress tables, construction details, etc., get this useful Arkansas Soft Pine Handbook. Write today for your FREE COPY.

ARKANSAS SOFT PINE BUREAU

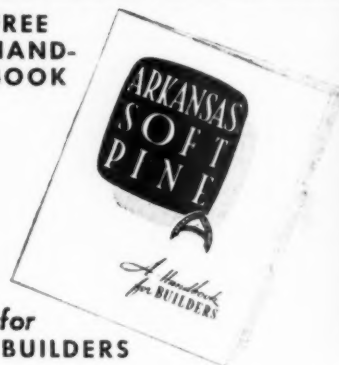
1014 Boyle Building

Little Rock, Arkansas

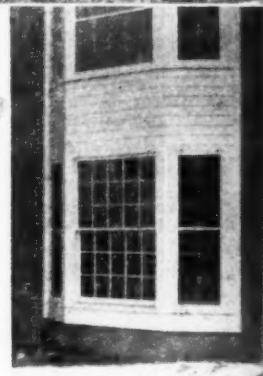
*Continuing Government restrictions have caused unavoidable delay in normal distribution to retail yards, so that the time when your dealer can show you this stock is still indefinite.



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HAND-
BOOK**

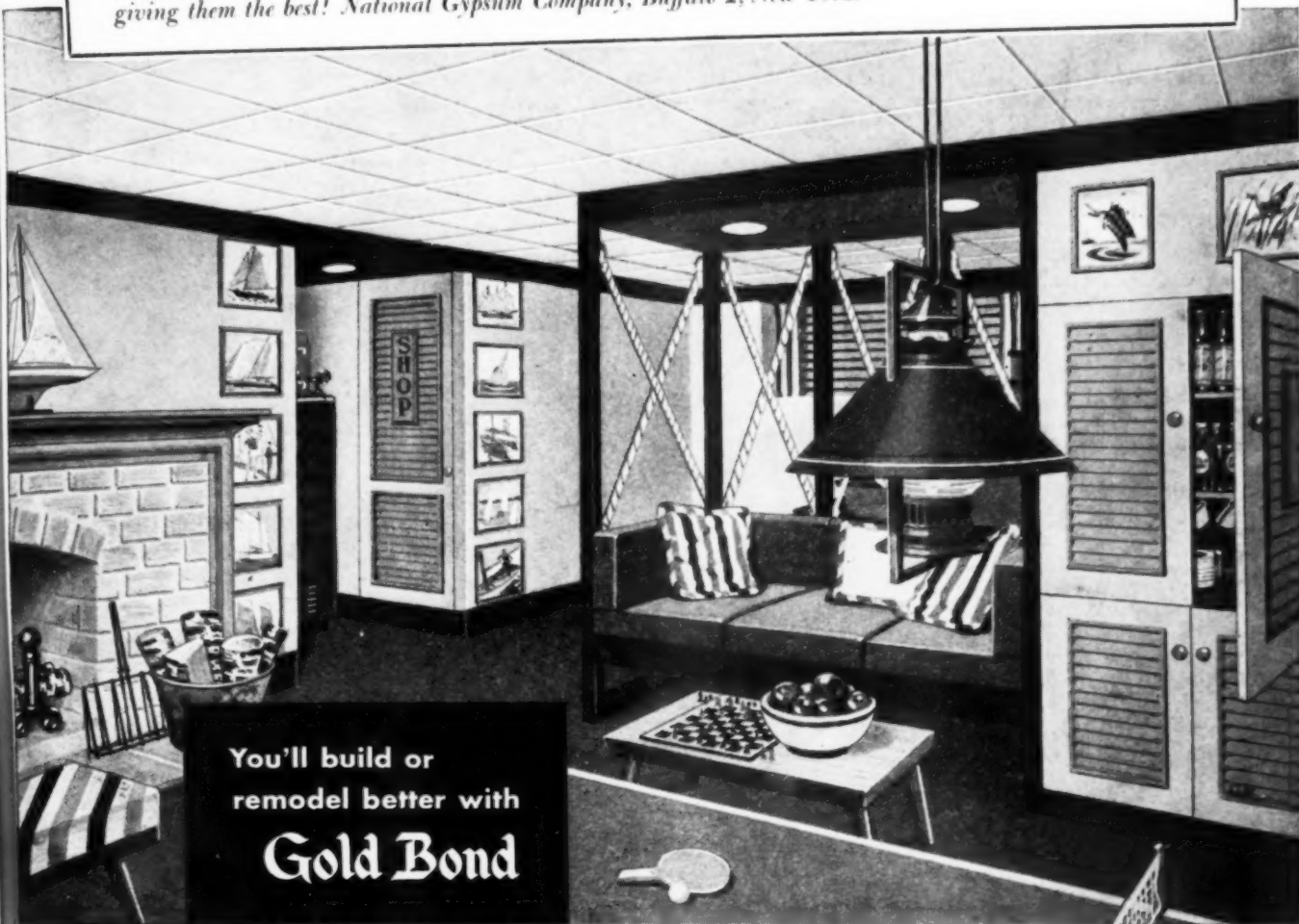


**for
BUILDERS**



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smarter
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Whether
not, yo
game-r
sturdy
built o

BUILDING BRAND PREFERENCE. Another full-color ad in the Gold Bond series now appearing in the Saturday Evening Post. Whether it's a panel of wallboard, a bag of plaster, a carton of rock wool insulation or any of the other 150 better building products made by National Gypsum Company, the trademark, **GOLD BOND**, on the materials that go on your jobs is proof to your customers that you are giving them the best! National Gypsum Company, Buffalo 2, New York.



You'll build or
remodel better with
Gold Bond

Ask your local Gold Bond dealer how easy it is to build new useful rooms like this from waste cellar space.

This is the room that just a little "Jack" built...

"When our son and his wife and youngster moved in with us, it meant plenty of strain in doubling up. Even the living room became a bedroom. But then came our smartest move. At small cost, we finished off the basement into a get-together room for both families. It worked like a charm!"

Whether you have extra people living with you or not, you will get a kick out of this good-looking game-room designed by a famous architect. The sturdy walls will last a lifetime because they are built of Fireproof Gold Bond Gypsum Board.

It goes up in a jiffy in big wall-high panels that take any type of decoration.

Another product that you'll hear a lot about when building gets under way is Fireproof Gold Bond Gypsum Sheathing. It's new. Builds exterior walls that are more weather-tight and firesafe, at less cost than old-style sheathing. Use it under clapboards, brick or any other finish.

Then for greater year 'round comfort and economy, there's a new high-efficiency home insulation—Fireproof Gold Bond Rock Wool. Keeps winter heat in and summer heat out. Pays for itself in new

homes or old by reducing heating costs as much as 30%.

In normal building times more than 10,000 lumber and building material dealers can supply all you need of more than 150 good Gold Bond Products. Today even our whole production can't keep up with demand. Even so, your local Gold Bond dealer is on the job, helping veterans to get housed, helping his customers in every way he can. See him first. He will help you to build better. Not today perhaps, but tomorrow, sure! National Gypsum Company, Buffalo 2, New York.

Over 150 tested Gold Bond Building Products for new construction or remodeling add greater permanency, beauty and fire protection. These include wallboard, lath, plaster, lime, sheathing, wall paint, insulation, metal and sound control products.

3 QUICK STEPS TO A NEW ROOM



TODAY, more than ever before, home buyers want to know what their money is buying. They want *value* throughout—and that's why they look for the G-E emblem on switches, convenience outlets, lampholders, fuses, and other wiring devices.

The name of General Electric is something to be proud of, for it signifies that there has been no skimping on quality, no outmoded design, in the wiring devices installed in the buyers' prospective homes. They add an extra "plus" to homes that makes them better to live in . . . and safer to buy.

It's easy to specify G-E wiring devices on *your* building plans, because the G-E



there's nothing humble about homes equipped with G-E wiring devices

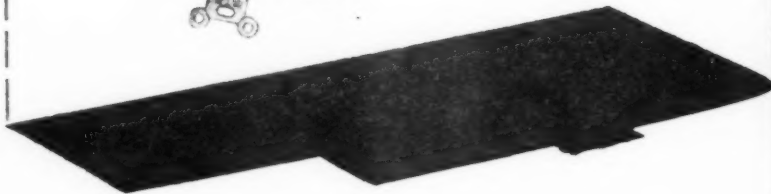
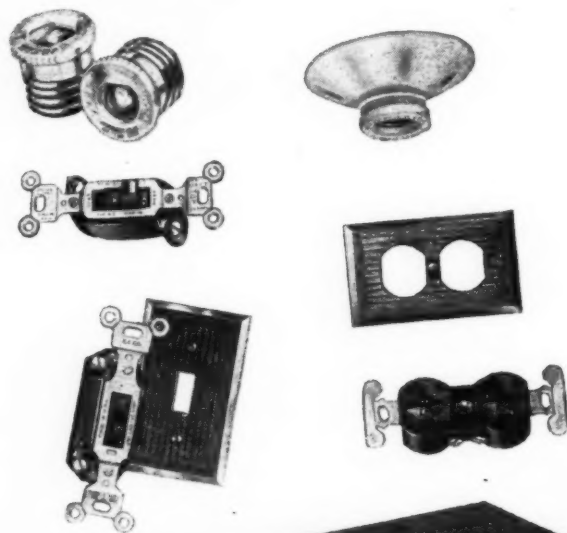
line is complete. Just say "G.E. throughout." Your nearest G-E Merchandise Distributor will gladly give you complete details on G-E wiring devices, or you may wish to write for information to Section D12-1080, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Connecticut.

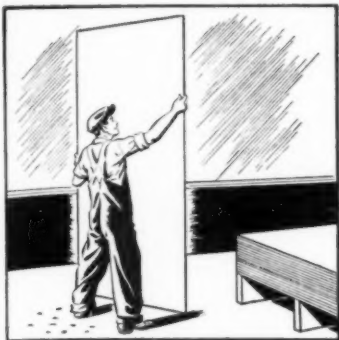


FREE

Write for your copy of this informative guide to "Electrical Modernization"

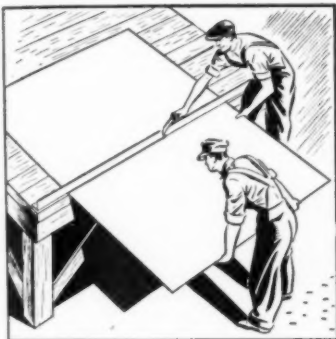
GENERAL  ELECTRIC





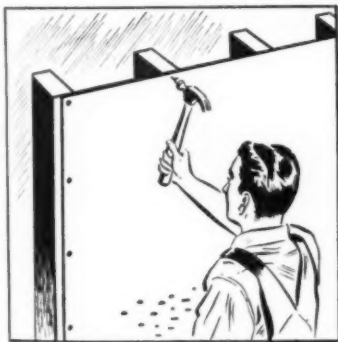
CONVENIENT SIZES

Supplied in handy 4' x 8' sheets, in thicknesses of $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{3}{8}$ ".



EASY CUTTING SAVES TIME

Cutting Apac to size and shape is a cinch—just score with a sharp tool, snap off over a straight-edge.



EASY TO APPLY

Fastens permanently in place with either nails or screws.



GOES UP FAST

32 square feet at a time... saves many man hours. And once up, Apac lasts a lifetime!

ASBESTOS IN ACTION



This modern two story poultry house—of unit design—has a roof and side-walls of Apac, making it resistant to fire, pecking, weather, termites, rodents.

LOOK at the advantages of K&M "Century" APAC

HERE is the solution to many of your building problems... K&M "Century" Apac, the asbestos board that has as many uses as a building has surfaces. Equally adaptable to buildings for farms, homes or Industry, Apac is a durable, economical material that cannot burn, rot or rust, and never needs painting or other upkeep.

Check the outstanding features shown here... add in Apac's low first cost... and you will see clearly how Apac can help you build more profitably.

Original manufacturers of asbestos-cement roofing shingles in this country.



KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA

foundations like these...



mean faster, better construction

UNI-FORM Panels formed these smoother, better foundations in $\frac{1}{2}$ the time at $\frac{1}{2}$ the cost, because they erect faster and strip easier.

Smooth-surfaced walls, sharp, accurate corners like these, add beauty and utility with even greater economy to every house you build.

UNI-FORM Ties lock the Panels into a tight, rigid, accurately spaced assembly which prevents grout seepage, "lost" concrete, and "fins" . . . always assuring smooth

walls of uniform thickness at top and bottom.

MATERIAL: The UNI-FORM System of foundation panels costs less than 3¢ per square foot. You can use the Panels from 75 to 100 times before replacement of the plywood. Rigid, all-steel frames are indestructible.

LABOR: Actual cost studies of forming with UNI-FORM Panels on widely varied projects, indicate forming costs to be as low as 2¢ per square foot of form area.



Investigate the time and money saving advantages of the UNI-FORM System today. They mean many more homes to meet today's housing crisis.

**WRITE FOR THE NEW
UNI-FORM BULLETIN
IT'S FREE!**

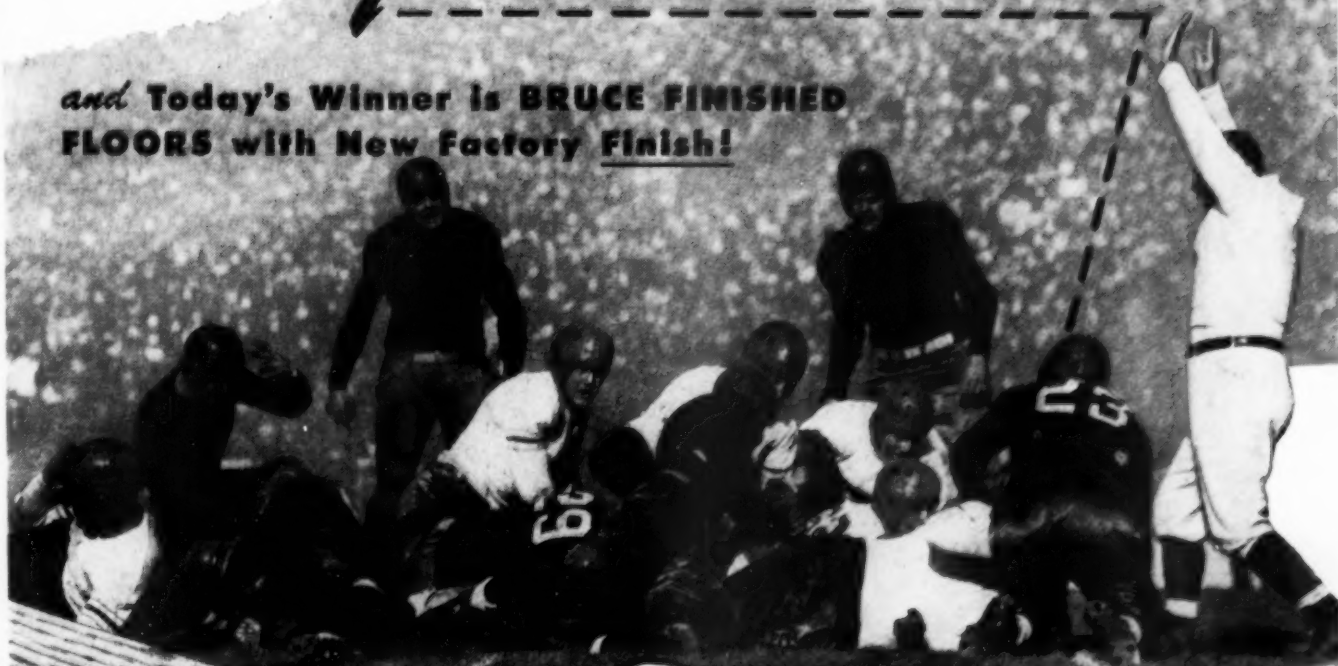


Ready to use..Story height forms..No nailing..No bolting..Just set them up

in floors, too...

IT'S THE *Finish* THAT COUNTS !

and Today's Winner is **BRUCE FINISHED FLOORS** with New Factory Finish!



8

**WAYS BETTER
THAN ON-THE-JOB FINISHES!**

*When
can you get it?*

There's still no improvement in the critical lumber shortage holding up production of Bruce Finished Flooring. But just as soon as conditions permit, we will give you the finest hardwood flooring ever made . . . more beautiful, longer wearing and easier to maintain than ever before.

**E. L. BRUCE CO.
MEMPHIS 1, TENN.**

*World's Largest Maker of Hardwood Floors
Also BRUCE Floor Finishing & Maintenance Products*

- 1 SMOOTH SANDING**—Each strip sanded to perfect smoothness on multiple drum, precision sanders. No sander marks.
- 2 PRIME CONDITION**—Finishing starts immediately after sanding, so no "raised grain." Moisture content of flooring is right.
- 3 PERFECT FILLING**—Highest quality silex filler is rubbed into wood as flooring moves down the finishing line.
- 4 THOROUGH SEALING**—Bruce Finish penetrates into wood pores . . . seals them against dirt and wear. Beautifies wood grain.
- 5 INFRA-RED DRYING** applies heat uniformly . . . welds finish into a tough, even film. No "unfavorable drying weather."
- 6 EXTRA BUFFING** with high-speed brushes burnishes finish . . . provides a harder, smoother surface for waxing.
- 7 SUPERIOR WAXING**—Special wear-resistant Bruce Floor Wax is applied evenly, then polished over and over with brushes and buffers.
- 8 READY-TO-USE**—No waiting on the job for finishes to dry . . . no hazard of finish being walked on too soon. Ready-to-use immediately.

BRUCE FINISHED FLOORS



Homeowners enjoy this "new quality of living"

Entire family gets 100% "use value" from Servel All-Year Gas Air Conditioning

You can specify Servel *All-Year Gas Air Conditioning* for your new homes in full confidence that your clients will receive maximum value from their investment in it. For, unlike many features in the modern home which are used only intermittently . . . extra bathroom, guest room, laundry . . . every member of the family enjoys Servel's "new quality of living" *every day in the year.*

In summer the Servel unit provides cleaned, refreshingly cooled, delightfully dehumidified air. In winter it circulates clean, draft-free, properly hu-

midified heat. Through every season, the homeowner can select just the climate he wants indoors by simply touching the central Selectrol control.

As proof of the high investment value of Servel *All-Year Gas Air Conditioning*, mortgage loan officers all over the country have indicated their willingness to extend longer, more favorable terms on homes equipped with it. They feel that the "new quality of living" it provides will keep homes modern longer, thus maintaining their resale value on a higher plane for a longer period of time.

Get full details now from your local Gas Company on all the advantages Servel *All-Year Gas Air Conditioning* offers your clients. Or write direct to Servel, Inc., 1610 Morton Ave., Evansville 20, Ind.



"Cape Cod—'46 Model," one of a series in *Good Housekeeping's* "Homes America Wants." Royal Barry Willa, Boston, Architect.

Equality of living" the year round

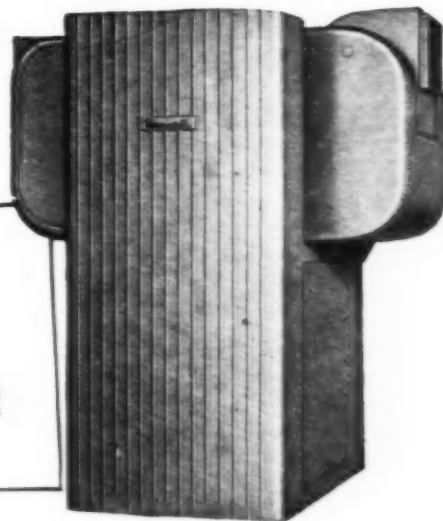
TRIED . . . PROVED . . . SUCCESSFUL

(From Boston to San Diego . . . From Bismarck to Miami)

The **Servel All-Year Gas Air Conditioner** is already operating successfully in hundreds of installations from coast to coast. Some have been running for more than four years. The equipment is tried, tested . . . and approved by users everywhere.

Servel

All-Year GAS AIR CONDITIONER



INSULITE

Insulates as you build



Outside Walls

Insulite sheathing builds a strong, weathertight, wind-proofed wall . . . a wall with effective insulation.



Inside Walls

Insulite Sealed Lok-Joint Lath provides a strong, rigid plastering surface . . . plus a second wall of insulation.



Refer to Sweet's File . . . Architectural Section 10 a/9.

INSULITE

The Original and Best* Wood Fibre Structural Insulating Board

*As Determined by Leading Testing Authorities

REGISTERED TRADEMARK

Minneapolis 2



Minnesota

IT PAYS TO PICK THE LEADER

Berry led all other manufacturers in the actual production and delivery of residential garage doors in the past year. In spite of this great production record there were not enough Berry Doors to go around. Yet, every franchised Berry distributor received his share of Berry Doors and is receiving more and more as fast as today's material shortages and production difficulties allow. That's why it pays to pick the leader and order Berry Doors—they will be available sooner and in larger quantities.



BERRY

*America's No. 1
Garage Door*



MORE SOLD AND INSTALLED IN THE PAST YEAR THAN ANY OTHER GARAGE DOOR

There are many reasons for the great popularity of the Berry Door, for Berry has pioneered such innovations as: aluminum construction for lighter weight and longer life—aircraft design for greater strength and rigidity—self-contained operating mechanism on the door itself, for greater safety and easier operation due to the elimination of dangerous exposed springs, sticking tracks and heavy weights—simple, one-man installation for lower costs and greater profits

You, too, will find that it pays to sell and install the leader—the Berry Aluminum Garage Door.

BERRY DOOR CORPORATION • WAYNE, MICHIGAN

BERRY
Aluminum
**GARAGE
DOORS**
OVERHEAD TYPE



"Simple mopping keeps it clean"



"Heaven to walk on—non-skidding, too"



"Puts glamour in any kitchen"

A Furore OVER KENTILE FLOORS!



In a modern kitchen, Philadelphia's Straubridge & Clothier uses Kentile dramatically.

It happens everywhere! In New York, Hartford, Boston, Philadelphia! Leading stores showing modern kitchens and basement playrooms, featuring Kentile floors.

National magazines featuring articles on tomorrow's living give definite acclaim to Kentile.

Our own advertising—in full color—is hammering home the salient points about Kentile.

No wonder women stop, look and make mental notes. No wonder they're Kentile conscious to the point where they look for Kentile in the homes they buy!

As an astute builder—with a reputation for foresight, integrity and smart designing, we hope you, too, are aware of Kentile's place in American life. Remember:

KENTILE
Asphalt Tile



GET THE WHOLE STORY—in our full color, informative folder. It's chock-ful of helpful ideas for builders—and it's yours for the asking. David E. Kennedy, Inc., 61 Second Ave., Brooklyn 15, N. Y.

KENTILE IS Designable It fits any floor plan because it's laid square by square (never by the roll). You combine colors—work out designs any way you wish.

KENTILE IS Economical It lasts indefinitely—looks young forever. (Kentile floors 15 years old are still daisy fresh in color and finish.)

KENTILE IS Practical It's non-skidding—non-absorbent, resists stains, burns or scars. Simple mopping keeps it clean.

National survey shows*... for HOME INSULATION

People prefer Johns-Manville

39 to 1 over any other brand!

This public preference will prove invaluable to builders in tomorrow's competitive market when building materials will again become abundant.

DURING this period of shortages, you are constantly faced with an important question: how to assure your customers that you are not using inferior materials in your construction.

No wonder builders report they have been impressed more than ever with the value of nationally known names accepted by the public as a symbol of quality.

When materials again become abundant, Johns-Manville believes this increased consciousness of quality on the part of the public will offer the builder even greater merchandising and selling opportunities than in the pre-war period.

Johns-Manville has been anticipating this situation. Through continuous national advertising, we have been preparing for the time when quality materials and consumer acceptance will become an invaluable asset to the builder of homes.

The result is that today J-M products enjoy an overwhelming consumer acceptance.*

Through our advertising program over the radio, reaching up to 30,000,000 listeners a month, Johns-Manville intends to build and maintain this consumer acceptance for J-M products. We believe this will offer you an opportunity to further improve your reputation as a quality builder in the face of future competition. Johns-Manville, 22 E. 40th St., New York 16, N. Y.

WHAT WITH ALL THE PUBLICITY ABOUT SHORTAGES THESE DAYS, I FIND IT'S QUITE A PROBLEM TO ASSURE CUSTOMERS THAT I'M NOT RESORTING TO INFERIOR MATERIALS

YES, THAT'S WHY I'M IMPRESSED MORE THAN EVER WITH THE IMPORTANCE OF WELL-KNOWN TRADE NAMES THAT STAND FOR QUALITY



* IN A SCIENTIFIC PUBLIC OPINION SURVEY recently completed, one of the questions asked was, "In what manufacturer of home insulation would you have the greatest confidence?"

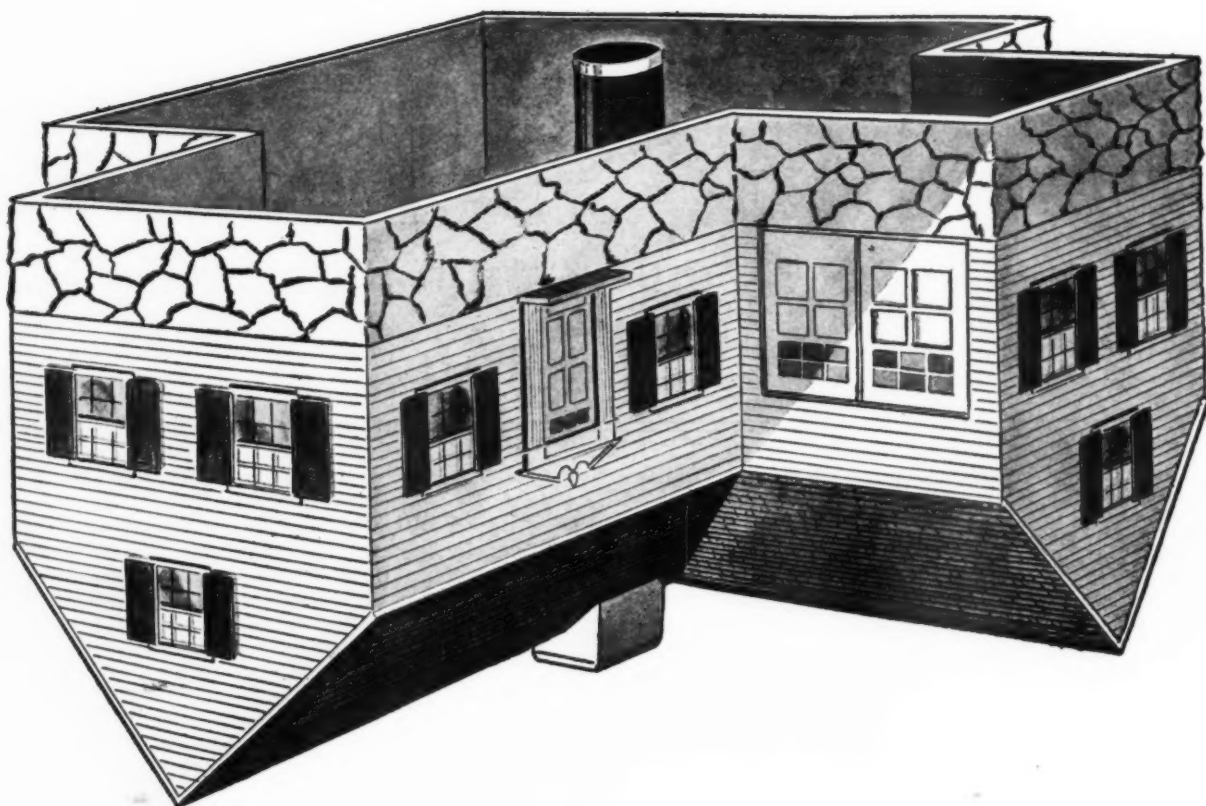
The vote was 39 to 1 in favor of Johns-Manville over any other manufacturer.

Overwhelming preference was also shown for other Johns-Manville products—for roofing, 8 to 1... for asbestos products, 60 to 1! Complete details on request.



Johns-Manville

ASBESTOS SHINGLES AND SIDING • ASPHALT SHINGLES • ASBESTOS FLEXBOARD • INSULATING BOARD
ROCK WOOL HOME INSULATION • WEATHERTITE SHEATHING • ROLL ROOFING • BUILDING ACCESSORIES



THIS SALES STORY *puts the cellar on TOP!*

G-E Furnaces really go to work for you ...building your reputation...making sales. Leading builders learned that lesson before the war. They plan to profit by it in the competitive days ahead.

Here's how it paid off for the Home Building Corporation of Kansas City. They equipped 124 houses with G-E Winter Air Conditioning Furnaces and other G-E labor-saving equipment. The houses were priced at \$4500 to \$6500. The G-E name was featured in the sales promotion.

In the face of competition, all 124 houses sold...and *sold promptly*.

A survey of the home buyers showed that the G-E furnace and other G-E equipment were *the most significant factors* in their decision to buy.

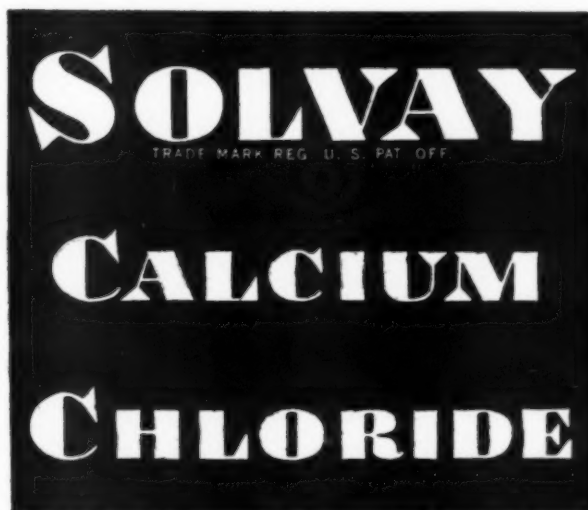
For gas or oil heat...for steam, hot water, vapor or conditioned warm air systems...install G. E. for more sales, for bigger sales when the going gets tough. *General Electric Company, Air Conditioning Department, Section 61110, Bloomfield, New Jersey.*

GENERAL  ELECTRIC
Automatic Heating Equipment

SPEED UP EMERGENCY HOUSING

Cut Concreting Time in Half

Use



Are you looking for an inexpensive short cut to speed up your building program . . . speed the day when more houses will be available? There is a very simple way to cut days from your emergency housing program. Add SOLVAY Calcium Chloride to your concrete mix. Footings will set in half the time, and

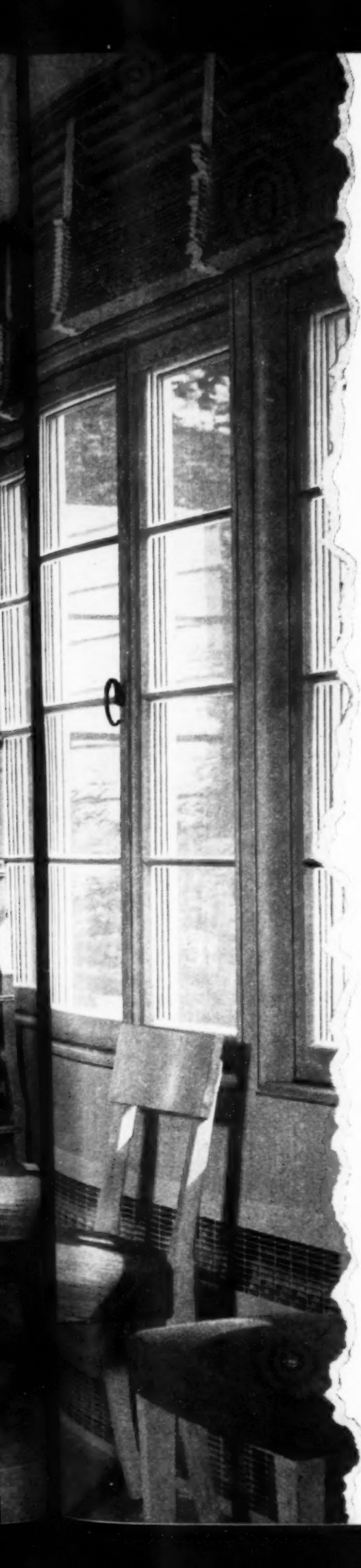
thus enable you to pour foundation walls sooner. With SOLVAY Calcium Chloride in your mix for walls, they will be ready for sills and studdings in half the time. More time saved. To meet your scheduled dates and speed up the finished job, specify SOLVAY Calcium Chloride.

SOLVAY SALES CORPORATION

40 RECTOR STREET

NEW YORK 6, N.Y.





**WHEN YOU TALK ABOUT VALUE IN
TODAY'S NEW HOME...REMEMBER**

Andersen Windowalls

WHEN the conversation these days drifts to the topic of what the home owner is getting in the way of value today, compared to 20 years ago, you can be sure it isn't long until Andersen WINDOWALLS are mentioned.

Today's home is a better place to live—better by far than one built two decades ago—because of Andersen WINDOWALLS. Just check these points, and you'll see how today's home buyer gets more for his money:

PREFABRICATED AT THE FACTORY—Andersen WINDOWALLS are precision milled, with frames and sash that fit perfectly.

COMPLETELY WEATHERSTRIPPED—WINDOWALLS are weathertight, weatherstripped at every vital point where cold air may infiltrate. No more fussing with weatherstrips after the home is built.

SUPERIOR OPERATION—WINDOWALLS incorporate special precision hardware that works and wears well . . . insures trouble-free operation. No more balky, rattling, sticking windows.

NEW CONVENIENCE—Removable sash, special screens and removable double glazings (in place of ordinary storm sash), all handled from the inside, are features of Andersen WINDOWALLS that reduce a housewife's or home owner's "chores".

ADAPTABILITY—Today you can WINDOWALL large areas in the home, simply by combining stock-size Andersen Window Units into bays, picture window combinations, corner installations. Limitless variations to add personality to a home.

WOOD PARTS CHEMICALLY TREATED—To guard against decay and termites, all wood parts in Andersen WINDOWALLS are chemically treated in accordance with highest industry standards.

ECONOMICAL INSTALLATION—Today builders slip Andersen WINDOWALLS into place in the wall section quickly and economically. Gone are old-fashioned cut-and-try methods that used to run costs up.

NEW BEAUTY AND SELECTION—Today the home buyer gets his choice of four fine designs in Andersen WINDOWALLS—choosing each type of window for its function. Superior design brings charm and attractive individuality to the WINDOWALLED home.

Andersen Corporation

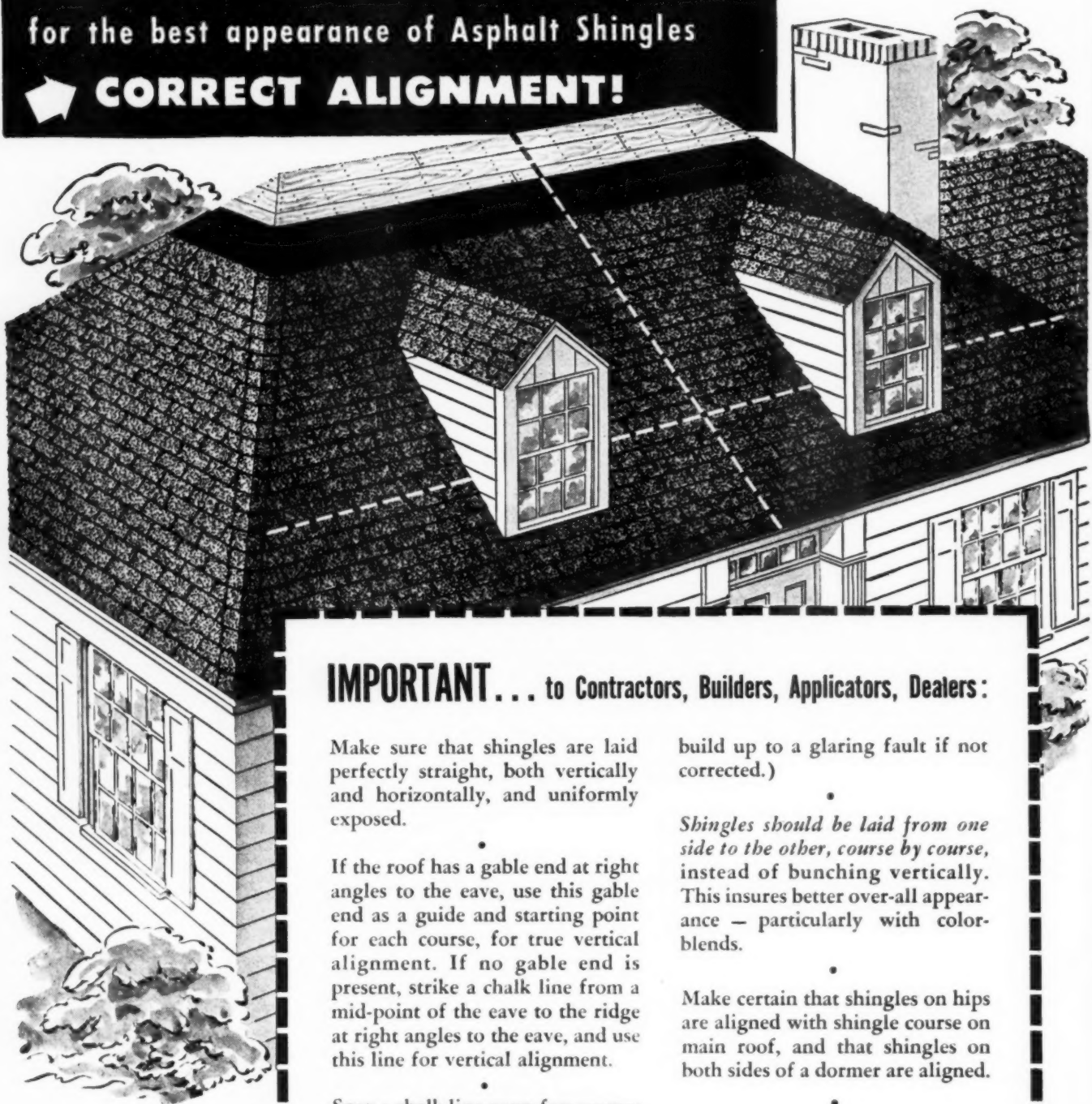
BAYPORT, MINNESOTA

Manufacturers of WINDOWALLS, Including Complete Wood Casement, Horizontal Gliding, Double Hung and Basement Window Units. For details, consult Sweet's Builders' Catalog or see your millwork dealer.

IMPORTANT...

for the best appearance of Asphalt Shingles

► **CORRECT ALIGNMENT!**



IMPORTANT... to Contractors, Builders, Applicators, Dealers:

Make sure that shingles are laid perfectly straight, both vertically and horizontally, and uniformly exposed.

If the roof has a gable end at right angles to the eave, use this gable end as a guide and starting point for each course, for true vertical alignment. If no gable end is present, strike a chalk line from a mid-point of the eave to the ridge at right angles to the eave, and use this line for vertical alignment.

Snap a chalk line every few courses to insure horizontal alignment. (A slight error at any one point can

build up to a glaring fault if not corrected.)

Shingles should be laid from one side to the other, course by course, instead of bunching vertically. This insures better over-all appearance — particularly with color-blends.

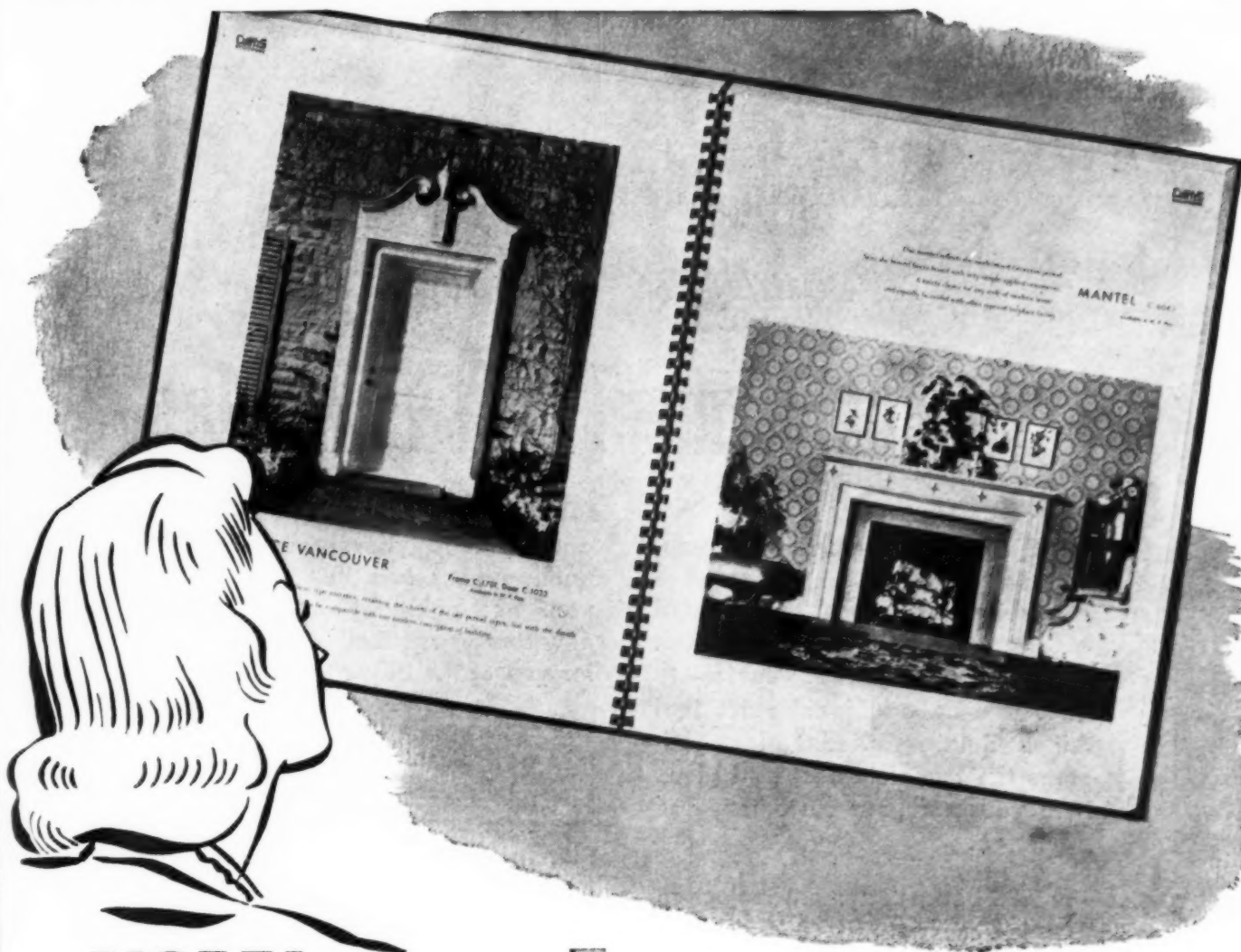
Make certain that shingles on hips are aligned with shingle course on main roof, and that shingles on both sides of a dormer are aligned.

For best appearance observe the above precautions.

THE TEXAS COMPANY

...manufacturers of Texaco Asphalt Shingles and Roofing





NOW...

BETWEEN TWO COVERS

An Amazing "Showroom" of New Woodwork

...NEW CURTIS WOODWORK STYLE BOOK!



You'll say you've never seen anything like it—once you examine this *new* Curtis Woodwork Style Book! Never before has any book presented woodwork so effectively ... and so beautifully. For here, in big pages measuring 15 x 19 inches, are mantels—entrances, windows and doors—kitchens—china closets—stairways—and other woodwork in natural room settings and charming life-like colors.

The new Curtis Style Book contains scores of ideas for interior and exterior treatment, using Curtis Woodwork and the new Self-Fitting Silentite Windows. Outstanding decorators have contributed valuable suggestions to make this book a source of inspiration in planning and building any size home—and to make selection of woodwork easy for architect and builder as well as for the home-owner.

Have your Curtis dealer show you the big, new Curtis Woodwork Style Book which the whole building industry is talking about. And mail the coupon for literature on the new Curtis Woodwork line and the new Self-Fitting Silentite Windows.

Curtis Companies Service Bureau
AB-10B Curtis Building
Clinton, Iowa

Gentlemen: Please send me booklets on the new Curtis Woodwork and the new Silentite Window Line.

Name

Address

City State

Allied Building Credits, Inc.

Proudly Announces...

the Budget Payment Protection Plan

HERE is real protection for your budget payment customers—a service for which they would gladly pay regular premiums. But to make your selling easier—to offer you an additional sales tool Allied Building Credits, Inc., absorbs the complete cost and gives it to you and your customers free of charge.

The ABC Budget Payment Protection Plan is simply this—ABC will cancel all remaining payments on an ABC Instalment note should the note-maker die. Cancellation is complete—no further payments need be made either by the survivor or the estate.

Yes, "Something new has been added" to make your selling easier

and to build your prestige. But nothing new has been added to your notemaking procedure. No new form is required—nothing new for you or the buyer to sign.

The coverage is automatic. In fact this new protection service is already in effect—it covers all sales* made on an ABC Budget Payment Plan since September 25, 1946. Be sure to tell your customers of this free protection. Be sure to tell your prospective customers personally and in your advertising that when they do business with you their time purchases are covered by the ABC Budget Payment Protection Plan.

*Includes all ABC notes up to \$5,000 for periods up to eighty-four months—except Small Home Notes.

**ALLIED BUILDING
CREDITS, INC.**



Complete Instalment Note
and Mortgage Services
for the Building Industry

If you are not already using the ABC Budget Payment Service to simplify your selling, write Allied Building Credits, Inc., 2501 First National Bank Building, St. Paul 1, Minnesota. You will receive complete information how this service can be made to work for you.

AMERICAN BUILDER

L D I T O R I A L

Progress in Home Building

NINE years ago the home building industry was being attacked for alleged failure to progress throughout a half century in the development and improvement of materials and equipment, home design and building techniques. *American Builder* met the charge by coining the phrase, "More House for the Money," and devoting the entire issue of October, 1937, to proving conclusively that the attack was predicated on false claims.

It was easy to show that while home building costs and prices had advanced, the value of the product had advanced even more. The uninsulated, unequipped shell of the 1880's had become an electrically lighted, centrally heated, more healthful, more livable, better designed, better built assembly of new and vastly improved materials, and mechanical and electrical equipment unheard of in the nineteenth century. The difference in the value of the homes of 1937 and those of 1887 was just as striking as the difference in the automobiles of the middle 1930's and the horse-drawn broughams of a half century before. Since the "More House for the Money" issue, the editors of *American Builder* repeatedly have presented the readers of this magazine with continuing new evidence of progress in all phases of home building.

Now, the industry is once more under attack. The proponents of government control of housing charge the industry with inadequacy and inefficiency in an attempt to enlist public and legislative support for public housing measures in Congress. Specifically, the charges include failure to produce new housing units in sufficient quantity, disproportionately high prices, and an attitude of static indifference to improvements.

It is necessary to prove again, therefore, that progress in home building is at least on a par with progress in other industries. The editors of *American Builder*, knowing that tremendous strides have been made in land use, financing, materials, equipment, design and construction techniques in the past twenty years, elected to offer the proof in this issue. The editorial pages and many of the advertising pages contain the evidence. The year 1926 was selected as the basis of comparison with housing of today, because the most spectacular advances in a century of improvement have taken place since then.

These advances have been made possible because manufacturers in a free competitive economy, spurred by a legitimate profit motive, have created and produced an unending host of new and improved products, upon which all advances in building depend primarily. It is in the laboratories and the factories of free enterprises, continuously striving to produce better product values, that better building values start.

There can be no comparable or even measurable progress under the proved cumbersome inefficiency of bureaucratic government control of home building. On the other hand, freed of the handicaps of government interference, the home building industry will continue the enviable progress that distinguishes it in American industry, and by which it has provided the world's highest housing standards.

Functional Planning Assures More

Challenged by a wealth of new materials, builders seek a progressive and straightforward approach to the home problem

THE question has often been asked, "Is the modern adaptation of the ranch house a passing fancy or fad, or are we entering into a new phase of house design that is basically sound, and which will be accepted by the building public?"

In discussing this question, it must be borne in mind that for generations the background and living habits of the American people have been developed through their association with homes where the living and service portions of the houses were contained on first floors and basements, and the sleeping quarters on the second floors. The pattern for this type of house has, in many instances, been dictated by old world tradition, an abundance of basic materials, and a concentration of rooms within a small area, one above the other due to the limitations of many types of heating installations.

With the improvements that have taken place in the building industry during the past twenty years through the introduction of new materials, with greater flexibility in the use of basic materials, with new methods of application, and innumerable other improvements, some of which are highlighted in this issue, the build-

ing public has been given greater freedom of expression than ever before. In this new-found freedom there has not been a casting away of all traditional thoughts; rather, by retaining some of the simpler elements in a modified form, as exemplified in the details employed in the house shown on these pages, much of the charm of the period houses has been captured.

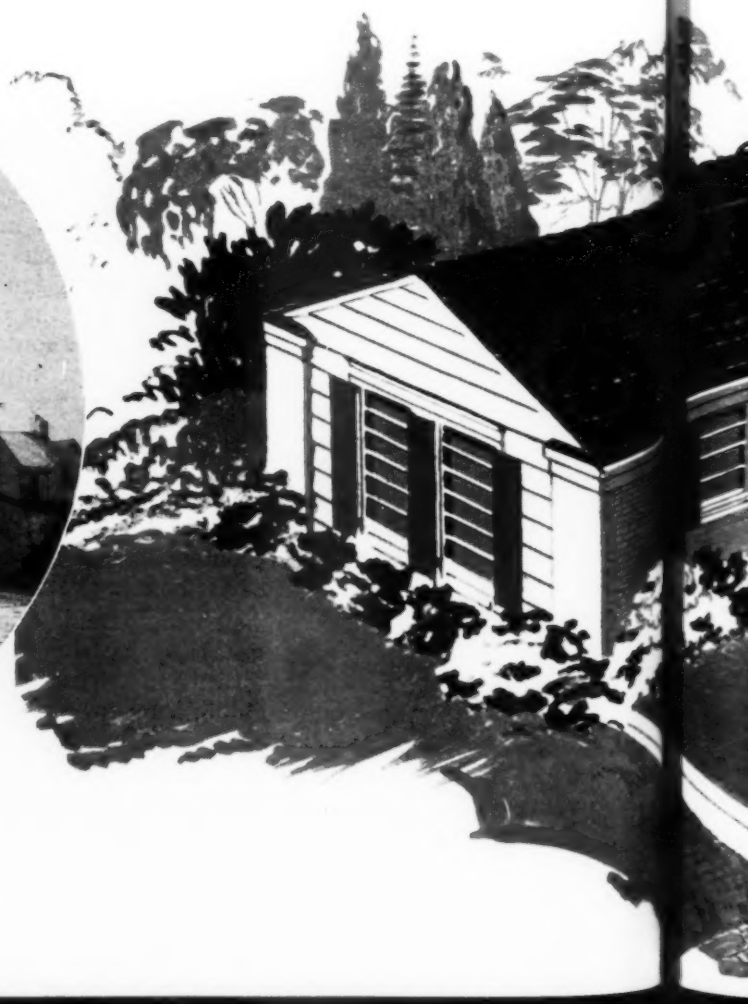
The modern ranch type house with its large, comfortable rooms, arranged in a manner to give the greatest amount of livability to the occupants, has captured the imagination of the public. These rooms, lighted from an abundance of large windows, take full advantage of the sunlight and the possibilities of solar heating. They also contribute an amazing sense of distance and, therefore, a spacious extension into the out-of-doors is obtained.

The eternal cry for adequate storage space convenient to the source of activity, and the feminine protest against excessive stair climbing, have been successfully answered in this type of dwelling. There also is a remarkable sense of spaciousness in the modern house. The effect is deliberately arrived at by combining living areas, and providing smooth, unbroken wall areas. Furniture units are often built in, becoming integral parts of the walls.

Due to improved heating methods, the laundry and all service elements have been taken out of the basements where they have resided for many generations. Large, bright and cheerful utility rooms have been placed on the ground floor, where their functions can



THE better type house of yesterday, as shown above, sought first for exterior architectural embellishment and adherence to old world traditions, and then adapted a plan to suit these conditions.



Desirable Homes—Today and Tomorrow

be exercised with the greatest of ease and comfort.

The necessity of obtaining larger building lots to accommodate the modern house is a blessing in disguise. The old thirty-foot lot with its over-sized dwelling and the resultant over-crowding, requiring the establishment of public play and recreational areas, is a thing of the past. The garage, which had its former abode at the rear of the property, has now been moved forward and has become an integral part of the house.

Through constant development and research by the manufacturer of building material and products, a host of new items has become available. They have had a tremendous influence upon the design of buildings, particularly the home. The modern ranch house with all its innovations, such as sealed double-glazed solar windows, improved radiant heating, mechanical ventilation and air conditioning and innumerable other outstanding improvements, has created widespread interest. The use of bar steel joists that span the entire distance between the exterior walls permits the use of semi-permanent partitions that fold or slide out of sight when not in use. Storage walls which can be moved at will, to increase or decrease room area as the need arises, permit great flexibility in the plan arrangement.

The modern one-story, or ranch house, as it is so aptly called, is a natural, and is here to stay. With the advent of new products, refinements in the basic design will be constantly taking place. As materials become more plentiful and restrictions are lifted this type of house will be in greater demand than ever.



FLOOR PLAN

THE plan shown above revolves around the entrance hall, permitting access to all rooms without conflict.



The house of tomorrow is contemporary in design, reflecting livability and embracing the love of the out-of-doors.



AS alike as Model T Fords, this row is typical of houses built in 1926.

Home Building on Long Island . . .

1926-1946



THE firm of Gross-Morton: George Gross (seated), president; Alfred Gross (left), vice president in charge of sales and promotion; brother-in-law Lawrence Morton (right), handles the construction.

DILIGENT application of a sound principle—"Giving the Small Home Buyer the Most for His Money"—has, during a quarter century of operation, made the name Gross-Morton, nationally known Long Island, N.Y., home builders, synonymous with Progress in Home Building. And it has established the firm as a pioneer leader among the biggest in the nation's home building industry. However, Gross-Morton did not start big, unless \$200 in cash, \$3,000 advanced by a local bank and the optimism of youth is "big."

Early in 1921, following in the footsteps of their builder father, Max Gross, who had retired three years earlier, the "Gross boys," George, then 21, and Alfred,



THIS STREET view of one of Gross-Morton's last

Twenty years of progress in home building is a part of the quarter-century, 7,000-house record established by the nationally known Gross-Morton firm

20, launched into house building in their home community of Queens County, New York. Brother-in-law Lawrence Morton joined the young organization shortly thereafter. "Queens" then boasted a population of 500,000. By 1940, when the population had increased to nearly 1,300,000, Gross-Morton had achieved widespread fame for their huge housing developments, several of which continue to attract interest as model communities. Among these are Rosedale, Forest Hills, Queens Village, Laurelton, Bayside Hills and Jamaica Estates—all in Queens County. Summed up, these developments represented more than 7,000 houses, built and sold, and a gross sales volume aggregating well in excess of \$50 million.

The average price of the Gross-Morton houses built during the past quarter-century ranges between \$8,500 and \$4,600, reaching its high in 1922 and 1929 and its low in 1934. Sales have varied from an all-time high of \$6,700,000 in 1928, the year the gigantic 3,000 house Laurelton undertaking was started and 929 houses were built, to the near zero of 1932, when no building was started and only a few houses sold.

An exemplification of Progress in Home Building is found by contrasting the houses built by Gross-Morton



prewar developments shows in striking manner the progress in exterior design that has been made in twenty years.

in their Rosedale project, developed in 1926 (right and opposite page, left above), with the homes shown above and right below, built in their last prewar development. The 1926 houses lacked the design, the ornamentation and the construction details of their latter day counterparts. Exterior designs ranged from good to indifferent to an occasional one that was plain bad. As time moved along emphasis swung back from a grotesque neo-English toward neo-Colonial, reflecting the style trends of the times. In one year when pseudo-Spanish was popular, as it was in 1928, Gross-Morton knew it was commercial suicide to offer anything else.

In structural detail a typical 1926 house was uninsulated, had a wood or asphalt shingle roof, tin gutters, iron water pipes, a plain "stripped" kitchen, a white bathroom, and a coal-burning boiler that could not compare with the efficient operation of a present day unit. It was situated on a 32 by 100 foot plot of ground without landscaping and it usually was one of a row of houses as alike as Henry Ford's then still popular Model T. From these early models, which George Gross today is likely to refer to as "crates," Gross-Morton consistently worked to give home buyers more quality for their money. Latter day models have a slate roof, copper gutters, brass pipes, a completely equipped kitchen with built-in cabinets and a gas range, a bathroom in full color with glass enclosed shower, an oil burner. The house is situated on a considerably larger, attractively landscaped lot, and the buyer has a wide variety of floor plans and as many as seventy-five exterior designs from which to choose.

TWENTY YEARS of residential building summed up in two houses. The 1926 house (right) contrasts sharply with its present day counterpart (below), and it decisively marks Progress in Home Building.





TYPICAL octagon front bungalow, 1926 model.



GATEWAY to Robin Hood Estates, development of Wm. Joern & Sons.



CHARLES E. JOERN

Chicago Builder Delivers More Value in Homes Today

In contrast with yesterday with its narrow lot and patterned house, the home of today embodies all the essentials for convenient living

"DOES the home of today represent a greater value per dollar invested by the purchaser than the one that was built twenty years ago?"

Sitting back in his large and comfortable office, located on the second floor of an old rambling farm house recently remodeled to meet the needs of his expanding business, Charles E. Joern without hesitation answered in the affirmative. This young man is now the nominal head of Wm. Joern & Sons, builders, LaGrange Park, Ill., who have been operating in and around Chicago for the past fifty years. Large scale developments have been their specialty, of which Edgewood Park, a community of fine large homes in La Grange Park, is an outstanding example.

"The house today," says Joern, "is a completely engineered unit. All happenstance methods have been done away with insofar as it is humanly possible to do so. Through the use of power and time saving equipment a more thorough and accurate job can be done in much less time than it could in the past. This offsets to a marked degree the increase in the cost of labor and ma-

terials which are the component parts.

"We are also building into our houses greater permanency through the use of precast concrete joists, slabs and masonry walls, both interior and exterior. Modern steel cabinets for the kitchen, more electric outlets, finer plumbing fixtures and better and more efficient heating equipment are the rule today rather than the exception. These, in addition to the modern plans and designs that have been coming off the boards of progressive architects, have produced a house that is far superior in quality to the house of 1926."

In a comparison of values based on the typical house of the 1926 and 1946 periods, a number of factors must be considered. Built by Joern and Sons in 1926, the typical octagon front bungalow, shown on the top of this page, sold for \$11,250. The thirty-foot lot on which it was placed contained 3750 square feet and cost \$1,250. The ranch house shown on these pages has approximately the same number of square feet as the 1926 bungalow, and is listed to sell for \$19,500. The lot upon which this house is placed has an area of 10,500 square feet, or very nearly

three times the area of the 1926 lot.

A cold comparison brings to light the fact that the difference of \$8,250 is not too far out of line. This is arrived at in the following manner: 10,500 square feet of property in 1926 would have cost approximately \$3,600. Increased building costs today in the neighborhood of 40 per cent over 1939 figures would indicate an additional \$3,800. In other words, the home costing \$11,250 in 1926 would approximate \$17,500 today, using the same equipment and material that was used at the time it was built.

Added improvements such as complete equipment, landscaping, and the many other items already referred to would warrant an additional cost over 1926. Together with refinements in plan and design, greater livability has been obtained in the 1946 home.

The house shown on these pages is one of a group just recently completed by Joern in the Robin Hood Estates, a development of ranch type houses, each having a lot with a minimum of 100-foot frontage. Further activity in connection with this project has been held in abeyance due to the restrictions of the Wyatt program.



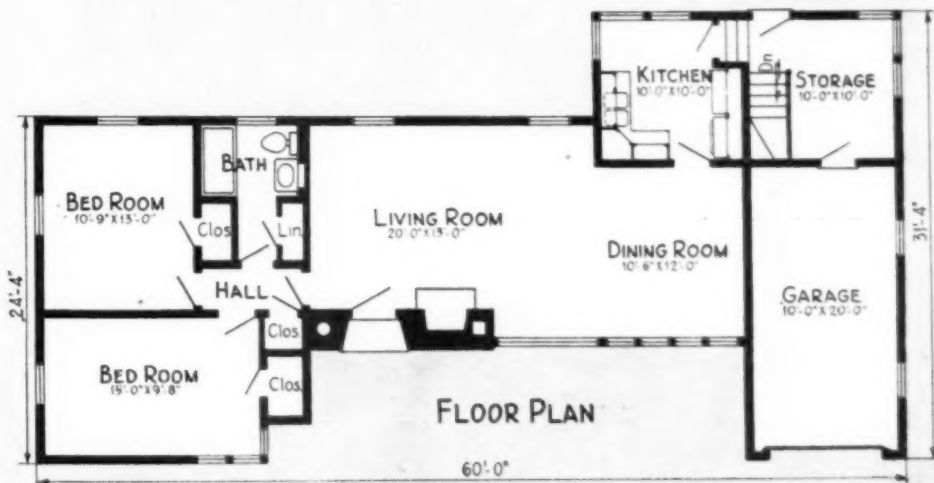
CONSERVATIVE adaptation of a modern 1946 ranch house.

Items Considered as Standard in 1946,
Not Available or Used in 1926

Materials & Equipment	1926	1946
Steel basement sash.....	No	Yes
Concrete floor joist.....	No	Yes
Concrete floor slab.....	No	Yes
Wall drain tile.....	No	Yes
Gas-fired furnace.....	No	Yes
Automatic hot water heater.....	No	Yes
Weatherstripping.....	No	Yes
Plate glass windows.....	No	Yes
Copper screens.....	No	Yes
Insulation.....	Partial	Yes
Flush doors.....	No	Yes
Prefinished block flooring.....	No	Yes
Painted walls & ceilings.....	No	Yes
Plaster walls & ceilings.....	Yes	Yes
Vitrolite wainscot.....	No	Yes
Rubber tile floors.....	No	Yes
Linoleum floors.....	Yes	Yes
Steel kitchen cabinets.....	No	Yes
Double compartment sink.....	No	Yes
Gas stove.....	No	Yes
Refrigerator.....	No	Yes
Switches for all outlets.....	No	Yes
Wood-burning fireplace.....	No	Yes
Complete landscaping.....	No	Yes
Garbage container.....	No	Yes
Attached garage.....	No	Yes
Surfaced garage drive.....	No	Yes
Dampproofing.....	Yes	Yes
Bronze hardware.....	No	Yes
Upward-acting garage doors.....	No	Yes



REAR view above. Plan below indicates compact room arrangement.



"I Am Building More

Veteran home builder reveals local cost records . . . finds today's new houses cheaper than old homes



STANLEY LONG, Seattle builder.



ENTRANCE detail of one of Stanley Long's 1946 models.

THE PANORAMA of West Coast home building unrolls in a fascinating way as one travels the residential streets of any of its prominent cities, especially if personally conducted by such an experienced, old-time builder as Stanley Long of Seattle.

To the practiced eye the style characteristics of the houses of each decade are so clearly marked that every street is definitely dated. No need of asking when a certain house or development was built. Its architectural style gives the answer. And, whether built in the then popular Carpenter-Gothic of the Eighties, or to imitate a Newport Villa of the Nineties, a wide-eaved California Bungalow of the early years of this century, or a pseudo-Spanish or brick Norman of the booming Twenties, there they stand still serving fairly well as habitations and shelter.

In contrast to these big old-timers there is the recent crop of small and monotonous war industry homes, relieved here and there by an individually planned modern, a Cape Cod cottage, a rambling ranch house or a true Colonial.

All these older houses, no matter how much or how little was their original building cost, are now changing ownership at unbelievable prices due to the present housing shortage. In fact, the skyrocketing market in old houses has put them clear out of competition with today's product of new houses, in spite of the difficulties and the apparent higher costs of current construction.

Since 1907 Stanley Long has been active as a home building contractor and developer in Seattle. He is typical of the best of those constructive pioneer builders who, since the turn of the century, have tamed the urban West and set the style for home improvements up and down the Coast.

"Regardless of the current difficulties of any particular period—and they were always many and most aggravating," he told *American Builder*, "we nevertheless have managed, down the years, to keep on building and selling, and these homelike residential streets are the result.

"However, we are building better now than ever before.

The war experiences have taught us many lessons. Today's buying public wants a different style house than back in '26; it's a simpler, smaller, better equipped and more livable house; easier to care for and less expensive to live in—and that's what we are giving them today.

"There is more thought, better planning and more expert styling going into our present output. It is better tied into its building site and surroundings. It takes better advantage of scenic views and of garden areas. It is less for show and more for comfort and wholesome family living.

"Costs are up, of course. There has been a steady upward climb—with here and there a temporary sag-off—since I started to keep my detailed cost record back in 1909. Average unit costs for dwellings in detached houses and in apartments in Seattle (shown in the attached table) increased from \$1330 in 1909 to \$3340 in 1926 and to \$6835 in 1946—which is some rise! However a substantial part of this is for improved automatic comfort equipment built into today's house to make it more self-operating, in line with the present servantless regime.

"Also the average figure has been increased from 20 years ago because today practically all the new houses, even the smallest, have their full quota of built-in automatic equipment; this increases their published price over similar houses of 1926, which were usually offered on a 'stripped-chassis' basis.

"We are turning out good houses today to sell at \$10,000 to \$16,000, and I challenge anyone to find in this city any old home, that can be bought at these prices, that gives so good a value for that money! Shelter is one of the four prime necessities of life—food, clothing, shelter, transportation—and folks are just beginning to realize how important the home is. In spite of the present higher prices for building labor, materials and home equipment, I feel that a good house is worth all that it costs today—and more; and I believe it will be a long, long time before this country sees any substantial reduction either in building labor wages or in the cost of building materials."

One of Mr. Long's current home building projects is

Livable Houses Today...'' Stanley Long, Seattle

HOME BUILDING IN SEATTLE

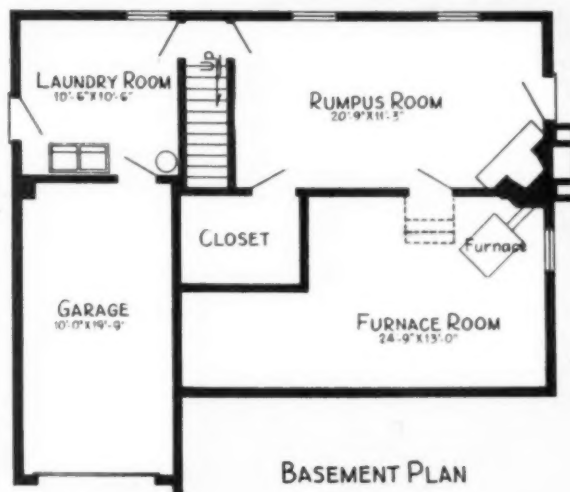
Year	Number of Units Built			Average Unit Cost*
	Apts.	Houses	Total	
1909	3050	3769	6820	\$1330
1910	1601	2836	4437	1390
1911	787	2133	2920	1360
1912	270	1816	2086	1565
1913	432	1766	2198	1827
1914	990	1737	2728	1612
1915	509	1311	1820	1538
1916	790	1082	1872	1360
1917	566	1025	1591	1464
1918	631	3917	4548	1241
1919	348	3343	3691	1774
1920	718	1431	2149	2412
21	1150	1775	2925	2430
22	1540	1903	3443	2940
23	314	2086	2400	3032
24	1350	2865	4215	3190
25	2610	3618	6228	3256
26	1754	3341	5095	3340
27	2116	2750	4866	3440
28	2812	2332	5144	3450
29	1632	1703	3335	3515
1930	2340	1176	3516	3320
31	192	994	1186	3010
32	72	307	379	1713
33	00	168	168	2400
34	00	150	150	1740
35	3	247	250	3600
36	20	531	551	4026
37	2	634	636	3750
38	275	696	971	3830
39	15	1261	1276	4175
1940	100	1824	1924	4270
41	782	2968	3750	4150
42	3090	1512	4602	3380
43	990	1484	2474	4225
44	680	1090	1770	4427
45	242	1271	1513	5512
46	94	1463	1557	6835

*Exclusive of land.

STANLEY LONG



FIRST FLOOR PLAN



BASEMENT PLAN

a group of six houses on 25th Avenue North in Seattle's Montlake district commanding a scenic view of Lake Washington and the University Arboretum. Designed by Albert A. Geiser, architect, these are two-bedroom homes with finished rumpus room in the basement. They present a broad one-story front to the street with a two-story elevation at the rear.

HOUSES on 25th Avenue North, Seattle, built by Stanley Long and designed by Albert A. Geiser, architect.



LAND USE

Subdivision Development



A COMMUNITY plan typical of the gridiron pattern common in 1926.

1926	1946
Total Net Area: 1031 Acres 1.6 Square Miles	Total Net Area: 1031 Acres 1.6 Square Miles
Streets 161,521 Lineal Feet 244.6 Acres (24%)	Streets 133,982 Lineal Feet 195.4 Acres (19%)
Alleys 129,146 Lineal Feet 47.4 Acres (4%)	Alleys 67,765 Lineal Feet 25 Acres (2.4%)
Neighborhood Parks and Elementary Schools 34.8 Acres (3.3%)	Neighborhood Parks and Elementary Schools 33.3 Acres (3.2%)
Community Park and High School 28.6 Acres (2.7%)	Community Park and High School 29.8 Acres (2.9%)
Public Buildings 2.9 Acres	Public Buildings 8.6 Acres
Small Parks and Walkways 10.7 Acres	Small Parks and Walkways 12.5 Acres
Buffer Parks 63.2 Acres	Buffer Parks 62.5 Acres
Parochial School 8.7 Acres	Parochial School 9.1 Acres
Churches 4.0 Acres	Churches 4.8 Acres
Single-Family Areas 260.6 Acres	Single-Family Areas 266.9 Acres
Group Dwelling Areas 228.0 Acres	Group Dwelling Areas 265.1 Acres
Apartment Dwelling Areas 65.0 Acres	Apartment Dwelling Areas 77.6 Acres
Retail-Commercial Areas 32.9 Acres	Retail-Commercial Areas 55.8 Acres
Total Dwelling Units 6,837	Total Dwelling Units 7,753
Estimated Population 23,000	Estimated Population 26,000

20 Years Show

Today the successful builder is a creator of communities and not merely a subdivider of land or a builder of houses. His success is measured by the character and quality of his projects

DURING the past twenty years well planned, protected, and properly improved residential neighborhoods have come to be recognized as factors essential to the successful marketing of properties in all price ranges. One reason for this is the recognition on the part of purchasers of these properties of the greater stability of real estate values in such areas. The development of slums, blighted residential areas, and the depreciation of property values have been generally due to the failure to apply the fundamental principles used in planning high-priced neighborhoods to areas composed of houses of more moderate cost. The increased emphasis for houses of lower cost points up the need for adequate planning of such neighborhoods to avoid rapid deterioration of property values, building of future slums, and preventable financial losses to developers and home owners.

Successful builders and developers well know that profitable subdivision planning involves far more than the mere drawing of street and lot lines on paper. They know that it includes the planning of neighborhoods in a broader sense which begins with the selection of raw land, the economical planning of streets, lots, utilities, the control of house design, and the use of a sound marketing program. Two decades ago little attention was given to the importance of these elements. Today they are given studied consideration.

Twenty Years of Progress

For purposes of illustration, the community plan shown to the left depicts how an area might have been subdivided in 1926. The familiar gridiron design includes areas for parks, schools, public buildings, churches, and retail stores of approximately the same acreage as those included in the plan shown opposite, hence it is appropriate to show it for purposes of contrast. It is to be noted that extensions of a proposed express highway system border the subject tract on three sides, and wide park strips on the north and east are provided as insulation against abutting inharmonious uses.

The "1946" plan (at the right), utilizing the "curvilinear pattern," reflects modern day planning principles and techniques, applied to achieve an integrated community made up of five distinct neighborhoods individual in character. The elementary school and playground sites constitute the center of each neighborhood. The streets are designed and laid out to serve a particular function for the circulation of pedestrians and vehicular traffic within and between neighborhoods. The children going to and coming from schools would need to cross only a minimum number of streets, all of which would be for local traffic only. The various neighborhoods are united to form a community with the high school and recreation facilities as the center of community educational and social life. Adjacent to the high school and closely related in function is a proposed central grouping of public buildings and retail shops to serve the whole community and other residential and industrial areas beyond.

Marked Improvement In Planning

To serve the various religious denominations of the people, church sites and a large parochial school location are grouped at a strategic center in the community. Each site includes ample area for off-street parking of vehicles and for appropriate landscaping of the grounds.

Important is the fact that the street system of the "1946" plan occupies no more land than is necessary to meet adequately all traffic requirements and to connect each neighborhood unit with another. Hence, the initial costs of land dedication and the improvement of streets with adequate roadways are held to a desirable minimum. Emphasis has been placed upon the designing of the residential streets in such a manner as to discourage through traffic from entering. The use of the cul-de-sac or "court street" is recommended wherever practical for utilizing odd-shaped pieces of land and when an adequate turning area at the end is provided.

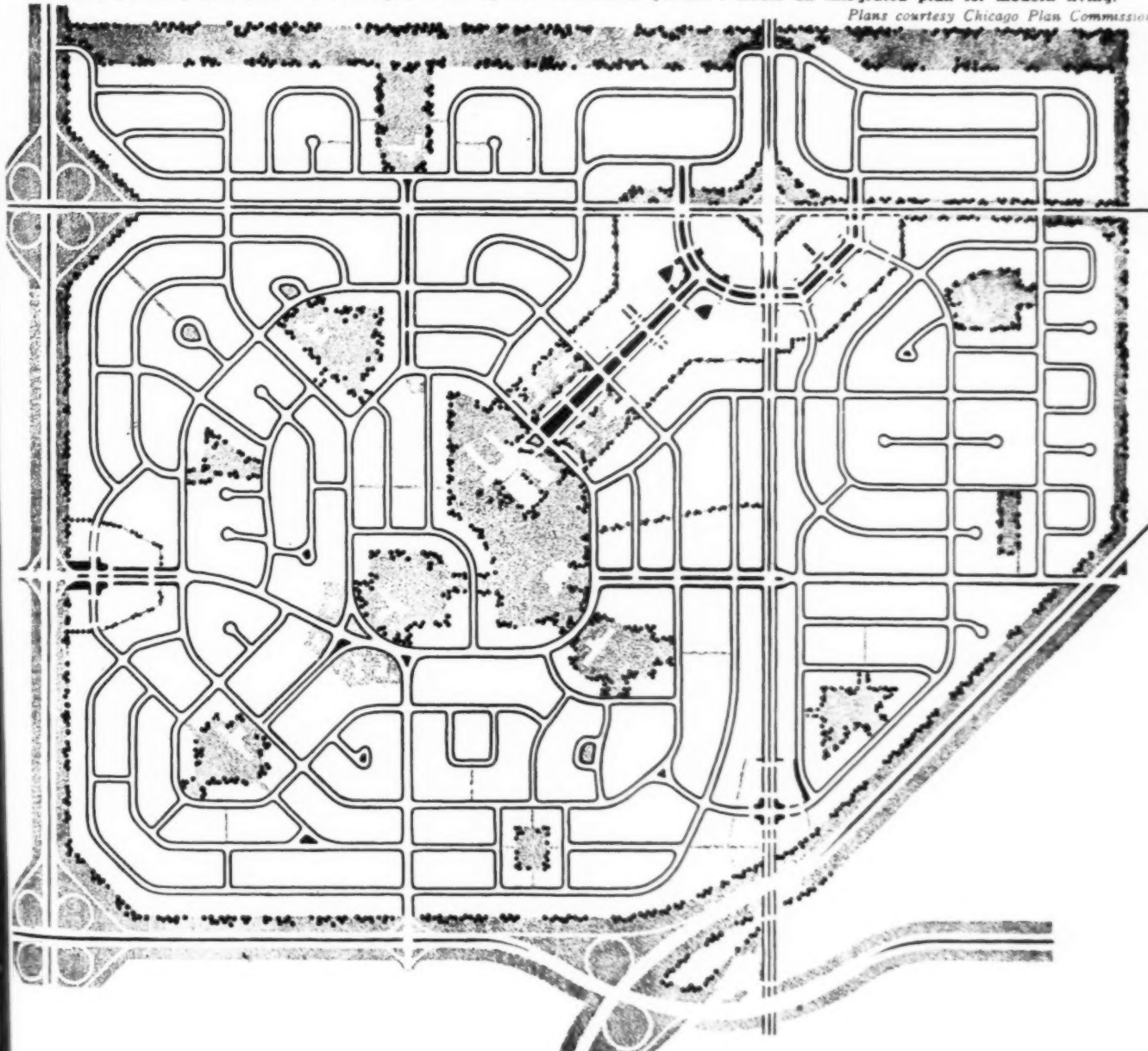
With the area for street dedications held to a minimum,

it becomes possible to provide more land for dwelling use. Single-family home sites should range from 50 to 65 feet in width in order to provide adequate distance between houses for light and air and in order to create desirable residential character. Garages could be attached to the house, or detached but located in proper architectural harmony with the dwelling. Front entrance drives obviate the need for alleys. Each family would consequently have more area for an individual garden and could enjoy considerably more freedom than would be possible under the "1926" gridiron type of plan.

Three shopping centers, equipped with well-improved parking areas, would provide for most of the retail commercial needs of the community. Two of the centers would be local in character, while the larger development would include such facilities as a theatre, department store, food markets, and so on, which would both draw and serve customers from a wide area beyond the community.

MODERN planning principles and techniques, utilizing the "curvilinear pattern", create an integrated plan for modern living.

Plans courtesy Chicago Plan Commission



FINANCING

Mortgages • Interest Rates • Terms

HOME builders delight in dramatizing the progress that has been made in design, comfort, convenience and luxury of American homes, by contrasting the crowded, white bathrooms of twenty years ago with that colorful, glamorous room of today. Or, they describe the kitchen of our parents, with its massive wood or coal range, its deeply-ornamented castings needing almost daily "blackening" and its great areas of nickel plating calling for constant polishing. Truly today's streamlined electric or gas range, whose gleaming porcelain can be washed as easily as a china dish, does denote great progress that is typical of almost every feature of the improved, modern home.

During the parallel period of years, comparable progress has been made in home financing. Such progress is just as important, even though its phases and details are more difficult to dramatize. The borrower used to pay his broker a commission to find him the money; now usually the lender pays the broker for locating a good mortgage loan. Ordinarily the only costs in addition to this are the title costs and recording the deed. During the past two decades, interest rates have also been substantially reduced.

HOME FINANCING IN 1926

Price

\$7990

On Contract	\$ 390
On Title	400
First Mortgage	5.000
Held by Title Company	
Second Mortgage	2.200
Runs Till Paid	
	<hr/>
	\$7,990

Monthly Carrying Charges

Interest on First Mortgage	\$25.00
Water	1.10
Insurance50
Taxes (Approximate)	10.00
Average Interest on Second Mortgage ..	5.50
Average Installment on Second Mortgage	30.50
	<hr/>
	\$72.60

Revolutionary

High interest rates and short-term loans of the '20's have been replaced by low interest rates and long-term monthly payment plan mortgages

Twenty years ago high interest rates and short-term loans were customary, if not the rule (see left below). Many mortgages at that time were arranged on a "straight loan" basis; that is, interest was paid at stipulated intervals during the period of the loan, and the principal was paid in one lump sum when due. The savings and loan associations pioneered in the idea of reduction of principal by regular monthly payments. The first breach in the mortgage rate structure was made in 1933 when the Home Owners' Loan Corporation began to refinance mortgages at 5 per cent. In 1934 the Federal Housing Administration established a nominal rate of 5 per cent for insured mortgages and also the "easy payment plan" of mortgage reduction. FHA's insurance of loans was found necessary when money was "tight," because without it investors were reluctant to risk their money in mortgages. It is still widely in use, but at the present time many builders state they prefer not to handle FHA loans because of the "red tape and delay." Another factor is the pressure of investment money which makes it possible to negotiate mortgage loans without FHA approval and insurance.

The straight interest mortgage is now the unusual. Another type of mortgage that has dwindled in popularity is the "varying payment amortization" mortgage. Under this plan the borrower paid a regular fixed sum toward reduction of the outstanding principal, and the interest payment became smaller with each reduction.

The "fixed payment amortization" mortgage is now the most common in use. As an example: A \$5,000 mortgage loan at 4½ per cent interest for a period of fifteen years will be completely amortized by a regular monthly payment of \$38.25. At the beginning, the larger part of the payment is for interest, with only a fraction for reduction of principal. But as the principal grows less, interest payments also decrease, leaving the greater share of the regular monthly payment to be applied against the principal sum. Thus the final payment is almost 100 per cent against the mortgage obligation. With this type of mortgage, therefore, the reduction of the debt takes place at a constantly accelerated rate, and it is liquidated in a minimum period of time.

The fixed payment amortization mortgage can be arranged to have installments include local taxes, water rates, fire and other insurance. It thereby takes care of a multitude of costs with one series of payments and a negligible amount of trouble.

One of the largest home financing groups is comprised of the savings and loan associations, which finance an important part of the country's mortgage loans. Many are members of the Federal Home Loan Bank System.

Insurance companies, particularly life insurance companies, are coming into the home loan field to a constantly greater extent. Ordinarily they act through a real estate broker who is known as their "mortgage

Economies Made in Home Financing

correspondent." Most savings banks and many commercial banks are extremely interested in home loan investments and operate a special department to take care of this business. Some of them deal almost exclusively in FHA insurance loans. National banks are now admitted to the home loan field by the provisions of the revised G. I. Loan Bill, which permits them to loan a maximum of 75 per cent for 25 years on loans to veterans. Previously they were severely restricted on home loans—a maximum of 66-2/3 per cent for 10 years.

Other classes of lenders include mortgage companies, trusts, estates, various types of foundations, and private individuals.

For the sixteen-year period 1925-1940, the average annual amount of mortgages outstanding was \$18.2 billions, with the average for individuals and others being \$6.4 billions, for savings and loan associations \$4.6 billions, mutual savings banks \$2.9 billions, commercial banks \$1.7 billion and insurance companies \$1.4 billion. The end of the thirties found each of these groups holding much the same proportion of the total dollar volume of mortgages outstanding as at the end of the twenties, with the exception of the savings and loan associations. These latter, which had held an average of 31 per cent in the four-year period 1926-1929, averaged only 21 per cent during 1937-1940.

For the sixteen-year period 1925-1940, the average annual amount of mortgages made was \$3.1 billions, with savings and loan associations making an average of \$1.1 billion, individuals and others \$0.7 billion, commercial banks \$0.6 billion, mutual savings banks \$0.4 billion and insurance companies \$0.3 billion. The only significant shift in the proportionate amount of the mortgage shifting between the late twenties and the late thirties was the decline by the mutual savings banks from 14 per cent in 1926-1929 to 4 per cent of the total in 1937-1940.

Among the more important neighborhood factors which affect mortgage loans adversely are:

1. Poor transportation.
2. Inadequate schools.
3. Excessive distance to shopping facilities.
4. Absence of utilities.
5. Inadequate street improvements.
6. Insufficient restrictions.
7. Dumps.
8. Cemeteries or mortuaries.
9. Industrial plants.
10. Railroads.
11. Heavy traffic.
12. Filling stations and garages.
13. Hospitals and similar institutions.
14. Too close proximity to churches, schools, stores, theatres, etc.
15. Undesirable neighbors.
16. Unattractive or poorly kept buildings in the vicinity.
17. Unattractive view or outlook.
18. Filled ground.
19. Sparse development.
20. High terraces (in some instances) and other defects of terrain.
21. Excessively narrow streets.
22. High taxes and/or assessments.
23. Lack of uniformity, i.e., spotty development.
24. Too close proximity to sign boards.



LIBERAL financing terms for low-cost homes make home ownership possible for millions.



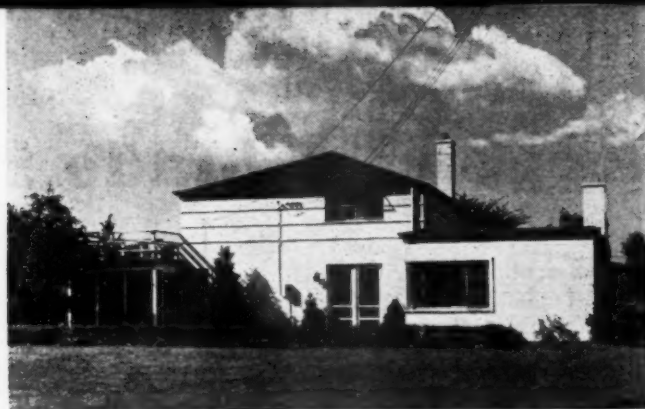
HOME ownership in the middle price bracket becomes desirable when monthly payments are less than rent.



LONG-TERM loans bring monthly payments down to the point where buyers can afford better dwellings.

CONCRETE WORK

Foundations • Footings • Slab
Waterproofing • Cement Block • Brick



Well designed concrete masonry house in which the horizontal joints are well raked, further emphasizing its broad, low lines.

Two Decades Reveal Progress in Concrete Products



SINCE the turn of the century cement has become one of the most widely used construction materials. It has been extensively used for all types of construction and has contributed greatly to the physical building of America.

Refinements in the manufacture of cement have resulted in improved quality and increased strength due to finer grinding, more complete burning, and better control of composition and manufacturing processes. Improvement in design and control of concrete mixtures has enabled the builder to take maximum advantage of the improvement in cement, with the result that stronger and more durable structures can be built with greater economy.



Scaling indicated on normal slab in foreground. Air entraining on balance was scale resistant.

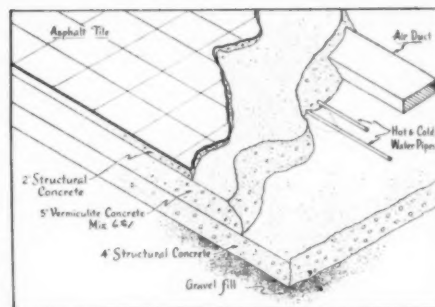
Air entraining marks another advance in the manufacture of cement and another contribution to the making of better concrete. Extensive research has shown that the scaling of concrete pavements caused by the use of de-icing salts could be greatly reduced and in some cases eliminated by the use of cement in which a small and precise amount of air entraining agent was interground. As a result, the use of this product has been extended to all types of concrete construction.

Concrete to be *usable* must first of all be *placeable*. To get the mix

workable to "place," it is necessary to add more water than required. The excess water may cause segregation of the mix and result in excessive bleeding. These are the twin ills of concrete, and where one exists the other is also present. How does concrete made with air entraining cement avoid this? When water is added to the air entraining agent (animal fats, vegetable oils or resins) and through the action in the mixer where a small amount of air is whipped into the concrete, these agents are dissolved, forming small amounts of soap.

The billions of tiny air bubbles, which air entraining cement creates in the concrete, act like ball bearings that hold apart the particles of fine and coarse aggregate. While the solid particles can roll freely on the bubbles, they cannot roll freely through or around the bubbles. This prevents the particles from settling or moving out of their relative positions. Thus the concrete is very plastic, less water is needed for a given workability, and segregation and bleeding are greatly reduced or eliminated. The combination of few channels and disconnected air cells in the hardened concrete minimizes the opportunity for water to move in and out of the concrete. Thus air entrainment fortifies the concrete against the effects of freezing and thawing weather.

Experience has shown that air entraining cement adds desirable prop-



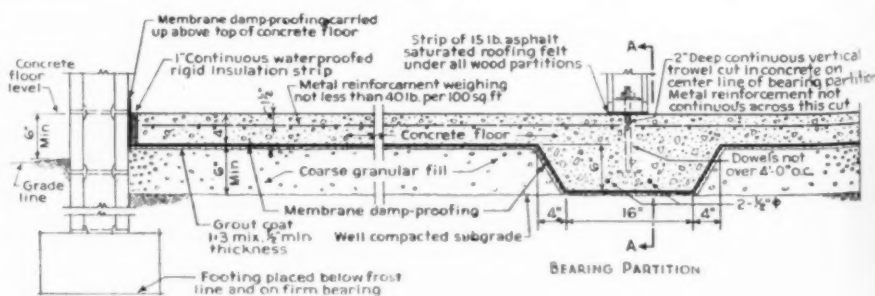
Detail of a vermiculite concrete floor.

erties to concrete and concrete products and facilitates the various steps in their manufacture. By following the above principles better concrete is definitely in prospect.

For residences without basements or for unexcavated portions under houses, concrete floors on ground provide an excellent type of construction. Recent studies have shown that when properly designed and constructed, concrete floor slabs on ground give better results than other types of floors.

The accompanying drawings show several types of construction that have proved successful. The basic difference in the two methods is that one employs the use of membrane dampproofing between the granular fill composed of either coarse cinders, slag, gravel or crushed stone, and the reinforced concrete slab above, while the other provides a base of granular fill placed upon the subgrade, with slabs

(Continued to page 164)



Construction details of concrete floor on ground showing the use of membrane dampproofing.



PROGRESS 1926-1946

LUMBER

From Forest to Dealer

Lumber Manufacture Is Now a Highly Mechanized Operation

CONTRARY to much public opinion, the lumber manufacturing industry is one of the most highly mechanized industrial operations in the nation. Development of machines to eliminate hand labor in woods and mills has made such rapid progress in recent years that today finished lumber is produced in the most modern mills without being touched by human hands until it is loaded in freight cars for shipment.

Electric or gasoline powered chain saws have replaced the old crosscut for tree falling and bucking. Two men with a chain saw can fall about 80,000 feet of saw logs per day and get more feet per tree because stumps can be cut lower than with the ax and crosscut saw method.

A new era in lumber production was opened when crawler-type tractors were brought into the woods to build primary and secondary roads, clear landings, take over skidding operations and, when equipped, furnish electric power for chain saws. Mechanical log loaders of various types speed up removal of saw logs from woods by rail and truck. The wide use of trailer-type log-hauling trucks which will transport up to 75 tons has reduced materially the time and cost of getting logs from woods

to sawmills over all types of roads.

Once logs get to the modern mill a host of intricate but rugged machines cut and finish lumber to precise sizes and shapes for use by the nation's consumers. Huge "double-cut" band-saws that make a cut in a log at both the forward and return motion, together with "gang saws" that will cut huge timbers into a dozen or more one-inch boards at one operation, are a complete transformation from the old single-cut circular saws.

Automatic lumber sorters and stackers have eliminated much manpower while also speeding up the process.

The installation of huge batteries of dry kilns in modern sawmills permits the shipment of scientifically dried lumber within a matter of days after it leaves the woods as against the weeks required under the old air-drying system. High speed planers and end trimmers are now in use that not only hold costs per unit to a minimum but turn out a precision product in lumber that permits the builder to do a better job with less manpower.

The trend in modern lumber manufacturing is for the sawmill to do more toward producing a finished or semi-finished packaged product. Much progress was made along this line during World War II.



Electric, or gasoline powered chain saws speed tree-falling operations.



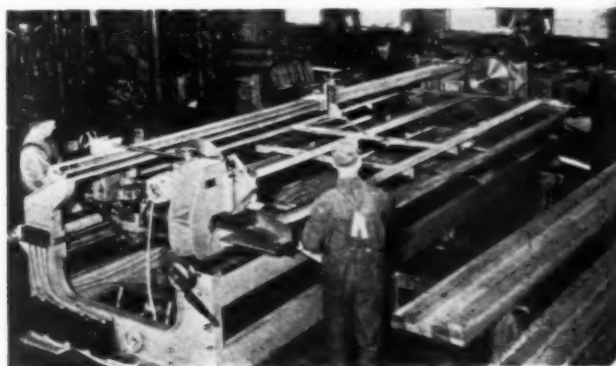
Crawler-type tractor with logging arch will handle 60,000 feet of logs per day.



Specially designed truck-trailer units transport logs to mill in minimum time.

Crawler-type tractor with fork lift simplifies lumber handling job.

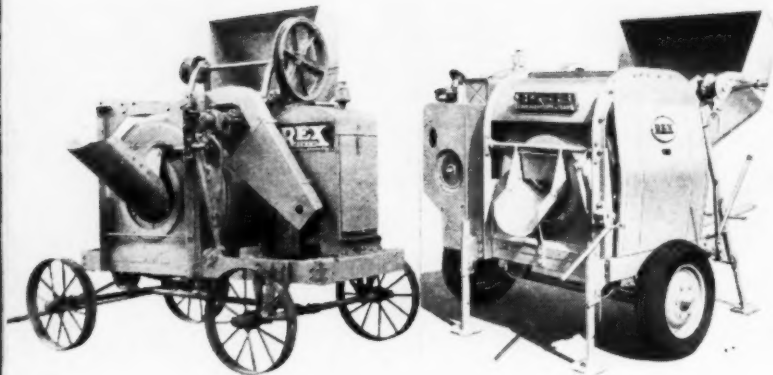
Right below: Trimming lumber to exact length with square ends and imprinting mill trademark.



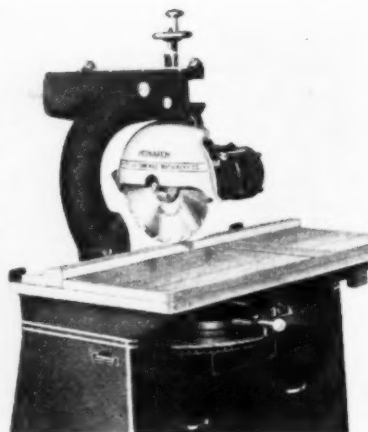
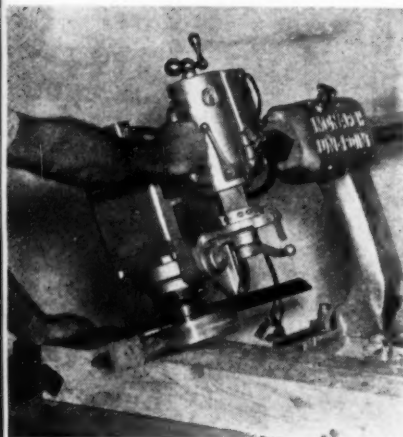
PROGRESS 1926-1946

POWER EQUIPMENT

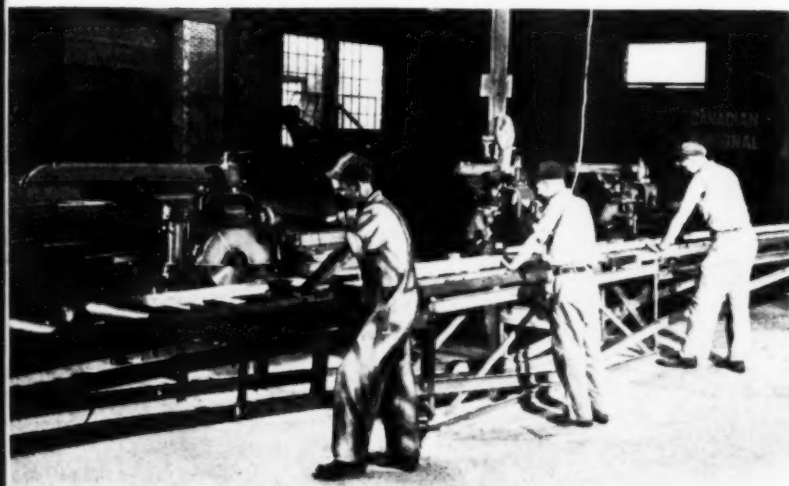
Tools • Saws • Sanders • Cement
Mixers • Hoists • Portable Power • Trucks



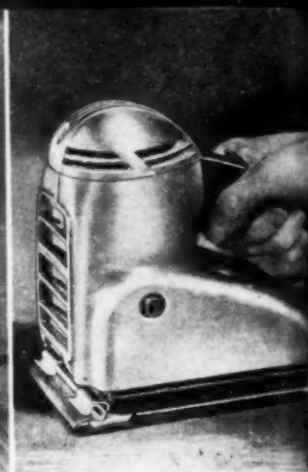
Visual evidence of transformation of Rex concrete mixers to 1946 simplified and streamlined, rubber-tired precision machine.



Two Monarch radial saws. At right, heavy duty stationary bench type. Left, lightweight unit that can be carried by two men.



Precutting on production line with series of Walker-Turner radial power saws.



Edging a panel with Stanley V-groover. Sterling sander for cramped quarters.

DURING the past score of years rises in building labor costs have been arrested through the introduction of new types of power tools and machines, and the improvement of others. Manufacturers of power equipment have striven successfully to make possible measurable increases in man-hour production, and to provide the means for mechanizing an ever increasing number of building operations.

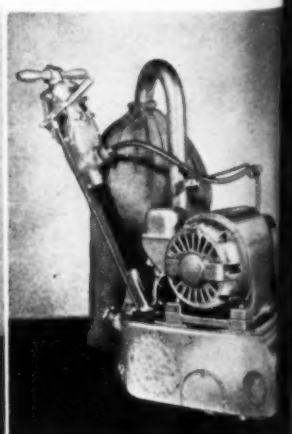
Portable power saws have speeded up site fabrication operations beyond any pace possible in 1926, and have added flexibility to the uses of their products that make practically every cutting operation on wood, insulation, drain tile and some metals a mechanical operation instead of a hand tool process. Jack rafter cuts, cross cuts, bevels, miters and other cuts are accomplished easily with modern portable power saws. Some of them can be converted into radial saws. Improved automatic safety guards render their operation nearly foolproof. Weights have been reduced, power increased, operation made easier, and durability extended.

Stationary bench and radial power saws have made possible the economical transfer of numerous operations from the job site to the shop. The new radial saws ordinarily can cut 2,000 studs in an hour or nearly 300 heel rafter cuts in one and three-quarter hours. Today with framing and trim cutting, rafter notching, stair stringer routing, grooving, door sticking, shaping for windows, mouldings, paneling, cabinet work and many other operations easily performed with new and improved portable and stationary power saws, builders have speeded up their work on both site and shop fabrication. The end of development in this field is far from being in sight.

Much the same can be said for power-driven concrete and mortar mixers. Illustrations on these pages show the sharp improvements in mixer design, and a volume could be written about the advances in controls

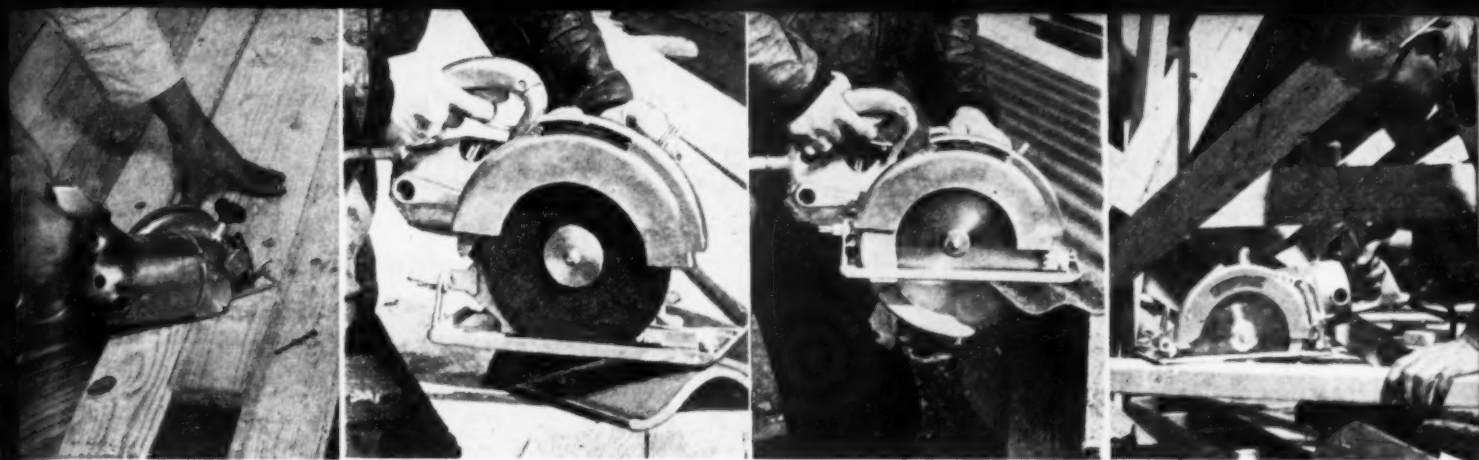


Porter-Cable corner sander.



American Floor Surfacing drum sander.

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Black & Decker power saw. Bias cut.

Cutting file with Wappat portable saw.

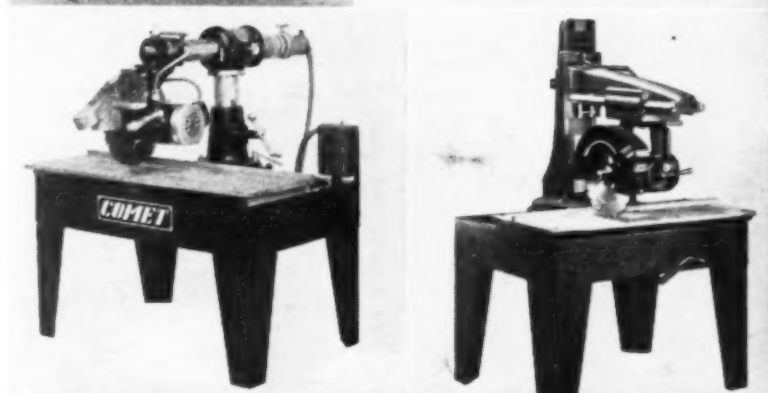
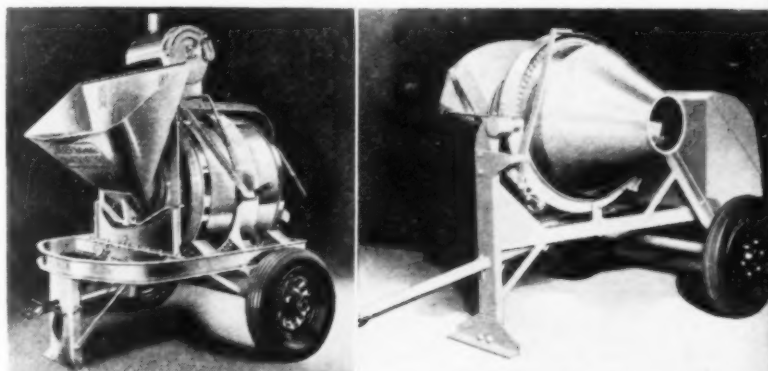
Note Wappat safety guard.

Skilsaw speeds site fabrication.

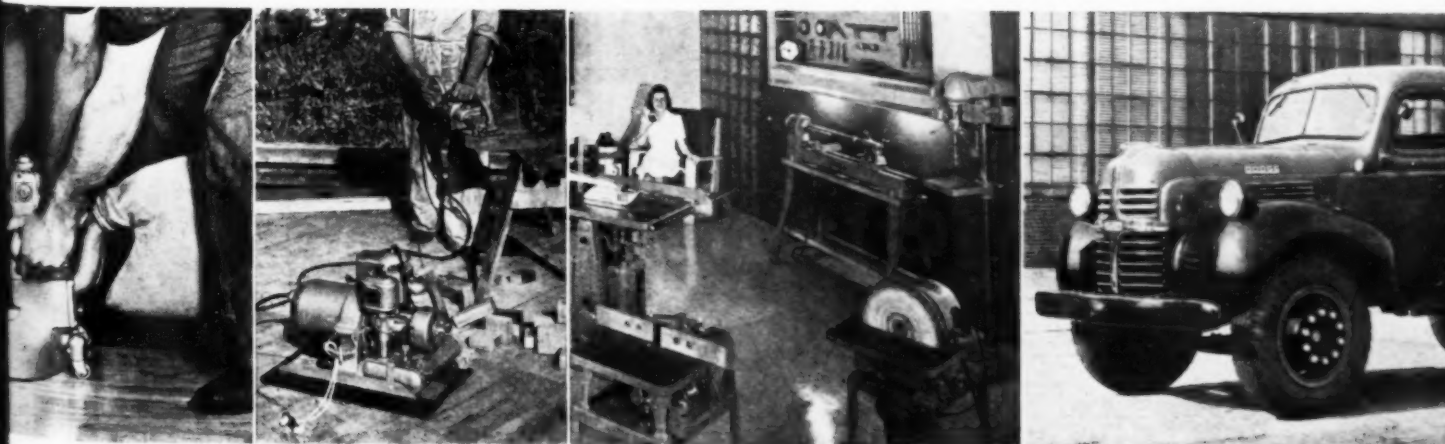
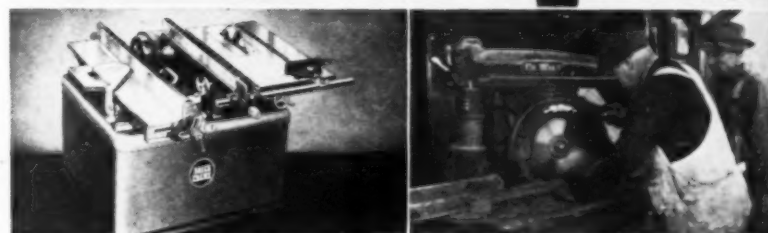
and operation that cannot be illustrated easily. Precision in batching, uniformity of mix, ease of operation, longer life, lower maintenance costs, simplification through streamlining and greatly improved carriages for faster and easier transportation are among the improvements of the past twenty years that have meant new economies in building, and better cement, concrete and mortar. An entirely new class of mixers and overhead bins has developed transit mixed concrete with its attendant economies since 1926.

An adequate discussion of motor truck improvements since 1926 is impossible in the limited space available. Mention should be made of the fact, however, that from a very limited number of types of trucks available twenty years ago, truck manufacturers have developed a wide variety to meet every possible transportation, trenching and excavating need of builders. Improvements in increased power, economy of operation, ease of handling, declining maintenance costs, flexibility of use, and all the countless advances aimed at better performance have practically revolutionized building operations that depend on motor trucks.

Right: Group of modern power tools and machines showing designs that reduce weight, increase efficiency, lower operating costs, includes Jaeger mixer, Comet, DeWalt and Boice-Crane saws.



Lighter materials and improved design have made 1946 Mall portable saws easier to operate, have given them better balance and have provided new building economies.

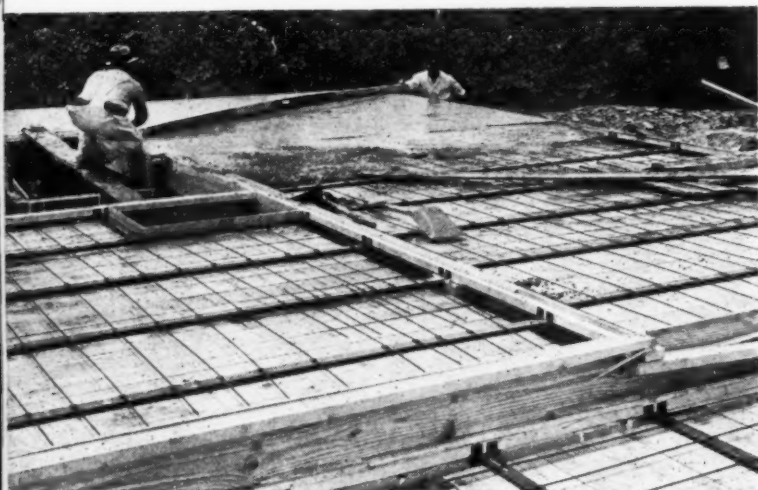


Left to right—American Floor Surfacing floor edger; Portable Homelite unit; fully equipped Delta home workshop. Indicative of new truck styling is this Dodge.

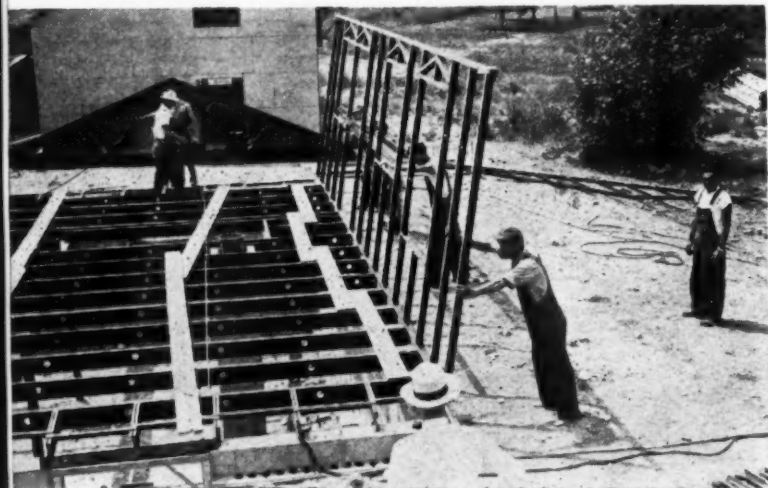
FRAMING·SHEATHING INSULATION

Evolution in Building

Manufacturing genius combined with ingenuity of builders produces scientifically engineered homes



Steel beams combined with reinforced concrete to form a floor. Finished floor will be wood block or linoleum. Photo: Jones & Laughlin.



Building with nailable steel framing. Photo: Great Lakes Steel Corp. Below: Conventional wood frame house with diagonal wood sheathing.



HOUSE framing materials are generally taken for granted. Manufacturers of materials and the builders, however, have made notable improvements in products and techniques during the past twenty years.

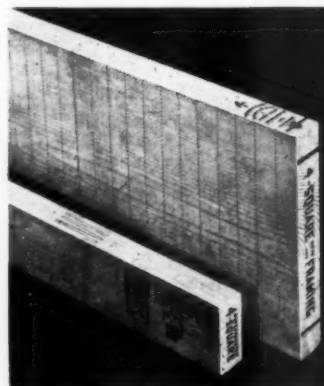
Research in the manufacture of framing lumber permits delivery of a product today that is far superior in many respects to that available to builders even twenty years ago. Dimension cut to exact lengths, with square ends and rounded corners, permits calculable economies in quantity of material and labor consumed to produce a frame that is far superior in shape, stability and strength to that possible in average construction twenty to twenty-five years ago.

Added to more precise manufacturing methods are the improved techniques and standards in seasoning and grading of lumber which carries the stresses and strains in homes. The load-bearing qualities of joists and rafters in various species have been carefully and accurately tabulated by engineers. Grading rules rigidly enforced by well-trained personnel assure delivery of framing lumber to the site and leave no question of strength to hit-or-miss calculation.

Introduction of metal joist hangers, metal bridging and improved stair building practices along with precutting of framing lumber at the mill and at the site by modern, precision machines have added to reduction of labor time on the job and materials consumed to produce a more rigid frame.

A new type trussed rafter, employing Teco connectors, has been designed and is being used in small home construction. Inexperienced labor can be used to preassemble these rafters on the ground to erect as a unit. There is no complicated notching, no spiking, and the ridge board is eliminated. The use of this new truss not only saves large quantities of lumber for rafters, but permits the elimination of load-bearing partitions and on-the-job closet framing in small homes, effecting a still further saving.

The extensive use of scientifically designed and proved termite shields with wood framing has come into common use to remove that danger. Wood preservative and treating firms have developed and proved wood impregnation



Nu-Loc studding and a piece of framing with inch and foot marks.



Weyerhaeuser's Nu-Loc stud—short pieces glued into full length.

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Sound assembly

Methods Results from Improved Building Materials

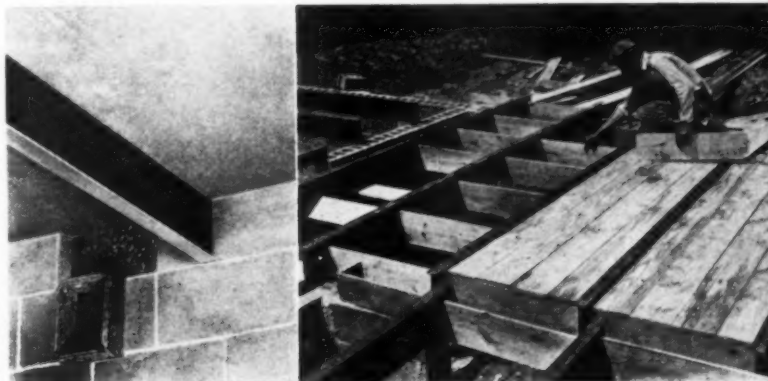
and treatment materials and methods to remove danger of infection or failure in wood framing from insects, fungus and rot. Fire-retardant treated lumber is also available to today's home builders.

Finely engineered nailable steel framing has been introduced to the home building market within the last twenty years. Uniform in quality and high in strength, this framing can be used with ordinary plans by carpenters and other workmen familiar with conventional wood framing. A nailing groove in joists and studs makes it possible to apply any type of finish on both the exterior and interior. Members may be joined with self-threading screws or welded. Cost of this material is slightly higher than wood but lower erection costs make the completed steel frame for a given building competitive price-wise with wood.

An important recent development in the brick and tile industry that will reduce on-the-job labor costs in addition to forming a smoother, tighter wall for home building is adoption of the principle of modular coordination. Based on a four-inch module, brick and tile are being manufactured so they will fit together in a structure without excessive cutting or waste. The manufacturers of metal and wood windows have adopted standard modular openings to conform with those adopted by the brick and tile manufacturers. The four-inch module for masonry will apply to solid brick, cavity-type and veneer-type wall construction.

The cement industry now has several approved types of residential wall construction available to builders. They may be coursed or random ashlar, as single walls or as hollow walls, and of solid reinforced concrete, reinforced concrete hollow double walls or ribbed wall construction. Probably the most popular type of concrete wall today is the regular coursed masonry wall, suitable to both period and modern style of architecture. There are also several types of approved concrete beam and floor construction for residences which have been developed in recent years. The steel industry has contributed improved steel beams and lally columns to aid builders in doing a better, more permanent job of house building in combination with all types of materials.

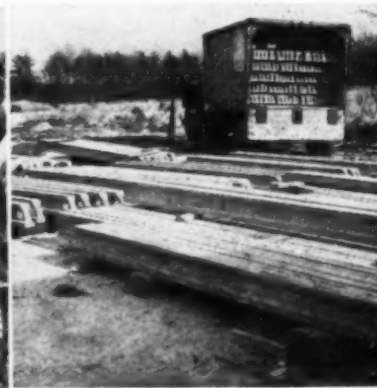
Innovations in the design of wood sheathing plus development of an entirely new line of insulating board sheathing in the last twenty years are outstanding contributions to improved and more economical home construction. End-matched wood sheathing not only permits much greater utilization of short pieces, but eliminates cuts over studs or joists, holding waste to a minimum. In



Left above shows the underside of concrete floor slab with steel beams encased in concrete fire stop. At right workman is placing spreaders between steel beams preparatory to pouring concrete. Photo: Jones & Laughlin Steel Corp.



Welder anchors steel frame assembly.



Precast concrete joists ready for delivery. Photo: W. E. Dunn.

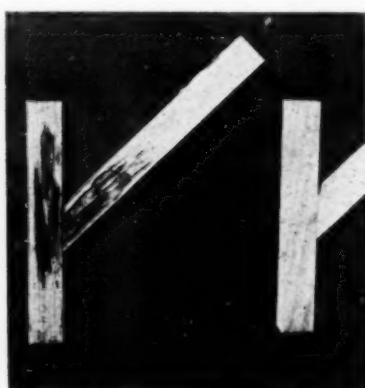


Adjustable steel columns correct sagging floors. Photo: Perma-Jack.

Copper armored Sisalkraft flashing applied at roof and sidewall juncture.



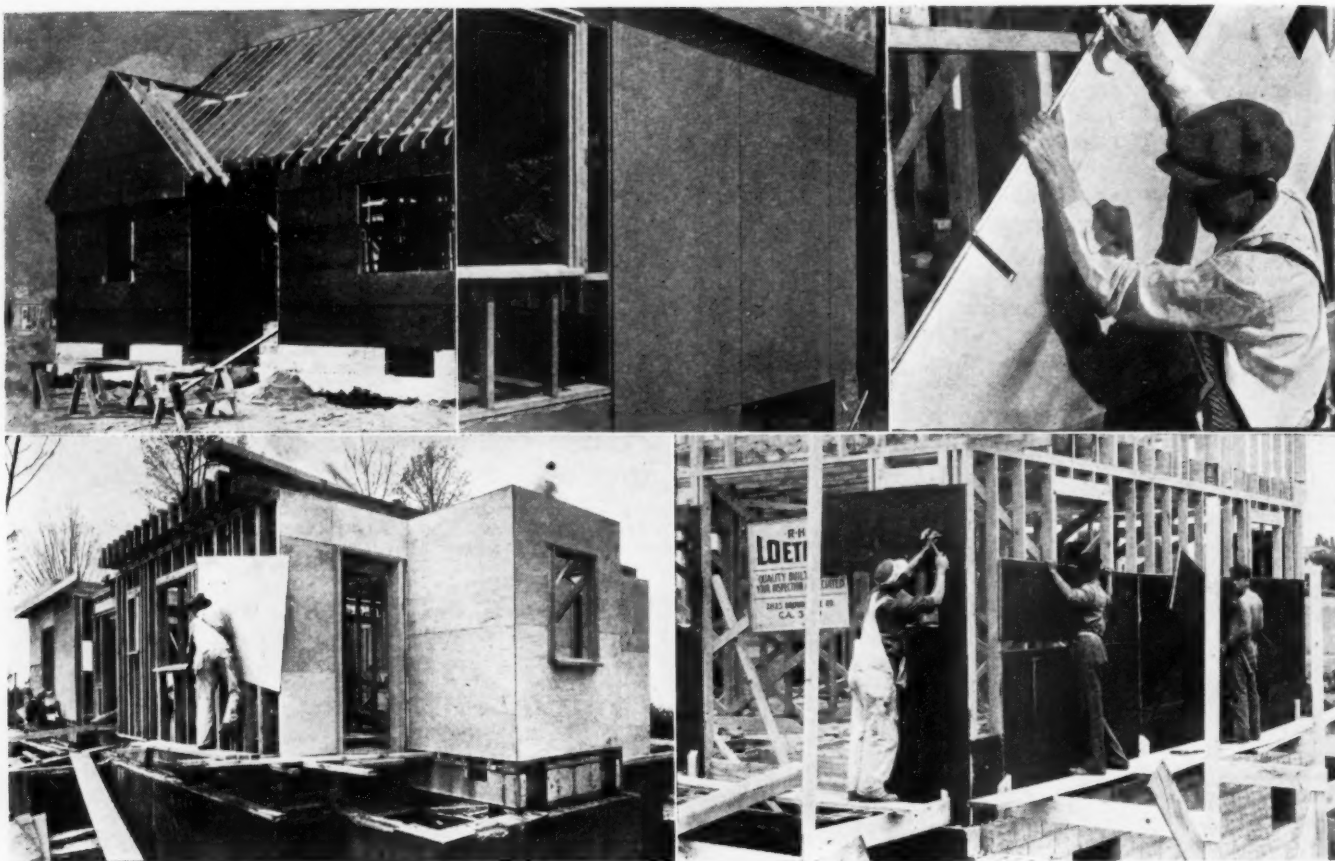
Sound engineering principles govern assembly of wood framing today.



Graphic comparison of treated and untreated wood exposed to rot.



Plywood roof sheathing being applied over new Teco truss rafters which eliminate need for bearing partitions.



Upper right: New USG asphalted-gypsum, weather-proof core sheathing. Center: Insulite's insulating board sheathing. Upper right: Weyerhaeuser's

end-matched wood sheathing. Lower left: Douglas fir plywood sheathing. Lower right: Another of the insulating board sheathings—Johns-Manville.

fact, the shorter pieces of lumber in end-matched sheathing permit easier handling by one man on the job, speeding up application. The use of wood sheathing diagonally has become common practice, adding rigidity and tightness to exterior walls.

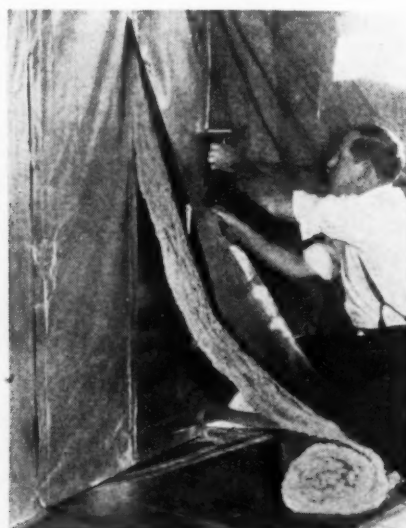
The rapid growth of softwood plywood production facilities plus consistent refinements in glues and gluing processes have enabled that product to take a prominent place in the home building market as sheathing and subflooring. The tremendous demand for plywood in recent years has made it unavailable for sheathing or subflooring, but in a normal buyers' market, it is definitely a factor.

About ten years ago the first insulating board made specifically for sheathing was placed on the market. Through improved treatment of the fibers, the use of asphalt as a coating or impregnation, and other methods, the board was given greater structural strength and made more resistant to weather. The large sheets permit faster application on the job, reducing the cost of this type of sheathing to a minimum.

Manufacturers have recently developed an asbestos-cement product which combines sheathing and wall covering in a single-thickness board, eliminating the separate layers of siding, sheathing, building paper, insulation,



Wood fiber blanket insulation showing typical installation. Photo: Wood Conversion Co.



Cotton blanket insulation first introduced in quantity in 1940. Photo: National Cotton Council.



Single thickness wall material providing strength, insulation and finish. Photo: Celotex Corp.

lath and plaster. This year one of the large gypsum manufacturers announced another asphalted-gypsum, weatherproof core sheathing.

Insulation has been another of the silent partners which have contributed materially to increased home comfort, safety, livability and economical maintenance during the last twenty years. In that period blanket and batt forms of insulation have attained predominance in new construction. The cost of a first class job of insulating a new house in 1946 as compared to 1926 is less than half. Permanence and safety factors are represented by improved resistance to fire, water, fungus, termites, etc. There are complete ranges of thicknesses to suit design temperatures and a complete range of widths to fit standard construction requirements. Batt and blanket insulations made of mineral wool, wood fiber or cotton are available with moisture and wind barriers, spaces flanges, liners and other improvements.

Not only have insulating board products been greatly improved in quality and variety but their cost even under today's conditions is actually less than it was in 1926. Improvements in the last two decades have given the board greater structural strength and added resistance to moisture, termites and dry rot. Instead of a single type of board, a complete and varied line of products is available.

Fill insulations of various types have been improved in quality and application techniques along with the dominant trend for insulation in existing homes as well as new construction.

Metal foil insulations of various types have proved their adaptability in home building.

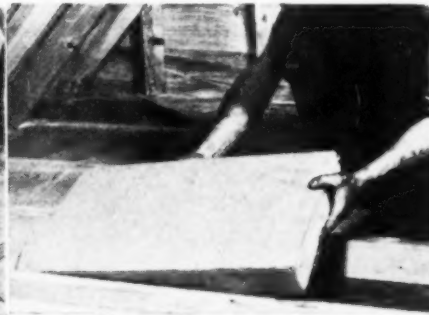
Along with the extensive refinements in insulation and sheathing have come outstanding developments of vapor seals and building papers by those manufacturers. Remarkable combinations of paper with asphalt, metals of various types and reinforcing cords provide builders with ample choice in these components.



Applying new aluminum foil insulation.
Photo: Aluminum Co. of America



Flaked aluminum bonded to Sisalkraft to form reflective insulation and vapor barrier.



Improved types of blanket insulation during the last two decades have greatly assisted the building industry in producing more comfortable, healthful, permanent, economical homes, all at lower costs and with greater factors of safety.



Blow-in wool insulations have dominated existing home jobs.



Use of vermiculite fill insulation in homes is on the increase.



Left to right: Ceiling job with batts; roll blanket going in sidewall; recommended method of cutting roll blanket; ceiling application of blowing

wool and ceiling application of thick Fiberglass batts. Fiberglass is distributed through retail lumber dealers by USG, Flintkote and Armstrong.

PROGRESS 1926-1946

ROOFING • SIDING

Materials • Application



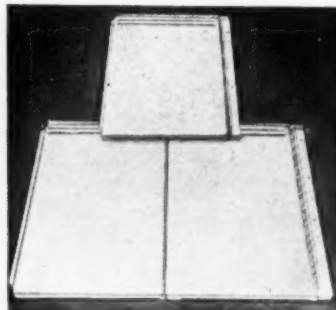
Typical asphalt shingle roof which can be applied in a wide variety of color combinations and designs.



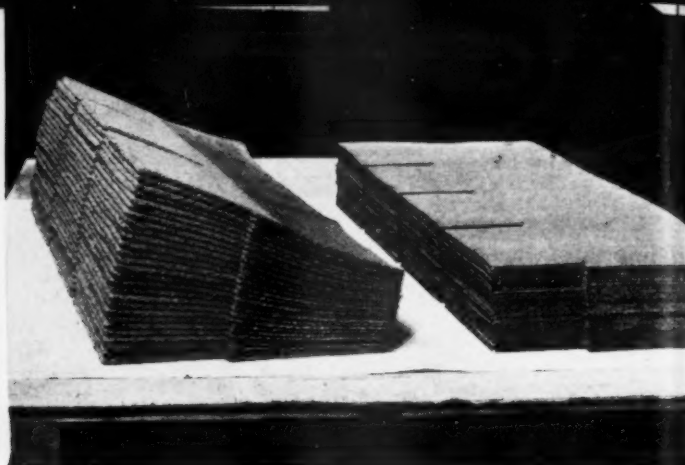
Quality of wood shingles is now standardized. Note wood gutters. Photo: Weyerhaeuser Sales Co.



Typical example of standing seam metal roofing installed on garage entrance canopy. Photo: American Rolling Mill.



The interlocking side lap aluminum shingle shown above is being applied in photo at left. Head lap of this shingle has two waterbreaks and a vertical safety flange. Completed job with all accessories produces 100 per cent blind nailing for entire roof. Photo: Southern States Iron Roofing Co.



Improved, tapered butt asphalt shingles which sell for 20 per cent less today than in 1926.

Strong Trend to New Materials For Exterior Walls and Roofs

AS a result of extensive research and accomplishment by manufacturers, the 1946 builder has a much wider choice of exterior wall and roof coverings than his counterpart of 1926. In addition to his old, dependable wood, brick, stone and cement coverings, the builder of today can also choose from asbestos cement, asphalt, plywood, aluminum and other metals.

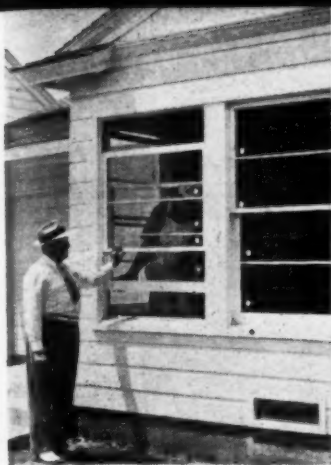
Wood shingles of today, including the various products such as shakes and stained shingles which come from the industry, differ greatly from the chaotic production of the hundreds of shingle mills running hit and miss twenty years ago. Today a Certigrade shingle, shake or stained shingle is received by the consumer with no doubt as to its high quality. More extensive use of shingles for siding, the introduction of rust-resisting nails, the "square-pack" along with other refinements, have featured wood shingles in the past two decades.

In the early '20's the asphalt shingle industry was in its infancy with but a few styles and colors available. In 1946 the asphalt roofing industry is able to offer a variety of styles and a wide choice of colors and color blends to harmonize with various architectural styles and color schemes. During the past twenty years, the quality and appearance of asphalt roofing products have been constantly improved. Today over eighty per cent of all roofing sold in the United States is asphalt roofing.

Twenty years ago, asbestos-cement shingles were available only in a few drab colors and the hexagonal



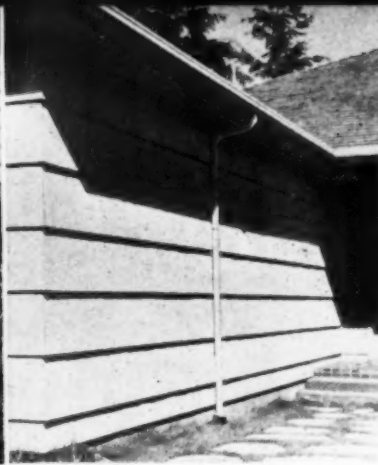
Recently developed and improved products shown here include asbestos shingles, asbestos siding shingles and waterproofed concrete block sidewall. Photo: Johns-Manville.



Drop siding with metal corner joint covers provides permanence.



Combination brick veneer, wood bevel siding, slate roof and copper gutters.



Widely used double course red cedar shingle sidewall covering.



Brick veneer over wood sheathing with a metal casement.

asbestos-cement shingle was the prevailing style. Today, asbestos-cement shingles are available in a wide variety of attractive colors with textures simulating natural stone and hand-split shingles. Asbestos roof shingles are available with heavy butts and in several other attractive designs. They are used extensively for both roofing and exterior sidewall covering.

Ribbed metal roofing of various types has undergone refinements to give the home builder of 1946 a better product. With the tremendous expansion of the nation's aluminum production facilities during World War II has come a flood of various types of aluminum roofing and siding products including shingles, sheets, and beveled strips for roofs. These just now are beginning to take over a prominent place in the roofing and siding market. Along with the strong trend toward flat low-pitch roofs on ultra-modern homes is the development of built-up roofs for that type house.

In addition to the proved conventional sidewall coverings of brick, stone, wood bevel and drop siding as well as wood shingles, home builders now may choose from a good variety of proved new products which have come into general use within the last twenty years. These include asbestos-cement, plywood, various metals and asphalt products. Asbestos-cement siding, developed about fifteen years ago, is available today in a number of attractive colors and several designs, including clapboard siding.

Manufacturers of metal flashings, wood and metal gutters and other weather-retardant components of roof and sidewall construction have not neglected their products during the last two decades and today provide builders with refined products that have kept pace with those which they supplement and protect.



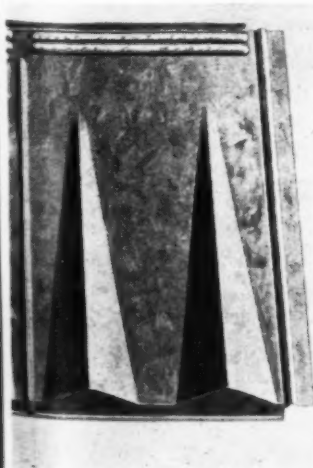
Exterior walls refinished with asbestos-cement shingles. Photo: Keasbey & Mattison.



Flat asbestos-cement board covers sidewalls. Photo: The Ruberoid Co.



Improved concrete block sidewalls and concrete tile roof do the job here.



Metal shingle with interlocking and waterbreaking features. Photo: Edwards Mfg. Co.



Insulating brick siding has proved its place in home modernization. Photo: U. S. Gypsum Co.



Installing new interlocking aluminum siding on a sidewall. Photo: Metal Building Products, Inc.



Improved glues and bonding techniques permit this type job with plywood. Photo: Douglas Fir Plywood Association.

WALLS·PARTITIONS

Plaster • Plaster Bases • Dry Wall
Construction • Plywood • Wall Coverings

Industry offers many refinements in products and wall finishing techniques that give 1946 home builders more satisfactory jobs with less on-site labor time

A LONG with improvements in materials which have lowered installation costs of conventional plastered walls in the last two decades, an entirely new term has come into general use in referring to interior wall construction—"dry wall."

Almost universal adoption of board and metal plaster bases of various types which are produced in large sheets for fast application as compared with wood lath has been a major factor in cutting on-the-job-labor time of plaster wall construction. While the new plaster bases were being devised by manufacturers, major improvements were being made in lime, partly by the Bureau of Standards and partly by industry-wide development of new types. Popping of lime after a few years of use was found to be caused by expansion and contraction of incompletely hydrated components which caused blistering on masonry construction. This difficulty was eliminated by treatment of the lime so that all components would be completely hydrated when used on the job.

A recent improvement in lime has been production of a product requiring less than one hour of soaking instead of 16 to 24 hours, thus reducing work and handling costs.

New formulas for gypsum plasters have been developed, practically eliminating quality problems on the job. Advantages of the new plasters are stabilization of setting time and working qualities in spite of widely varying sands, waters, and adverse job conditions. Development of "microplastic," "plasticized" and similar gypsum plasters have given superior coverage, better working qualities and increased finished strength. Sound resistant plastering systems have been developed by use of metal clips and special nails, which permit movement of the studs without cracking the plaster, plus lower sound transmission. Sound deadening aggregates for plaster also are available now where acoustical treatment is desirable.

Board lath is produced plain, perforated, or with a metal foil attached to one face. The foil backing provides insulation and acts as a vapor barrier when installed on the inside face of an exterior wall, or as a top floor ceiling. Metal lath is manufactured in a number of varied designs, all of which act as a steel core for the plaster. Insulating board laths with a high plaster bond have also been developed to combine insulating characteristics with a plaster base.

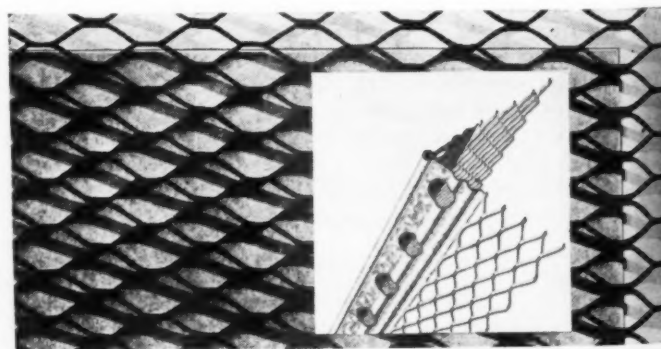
Many New and Improved Materials



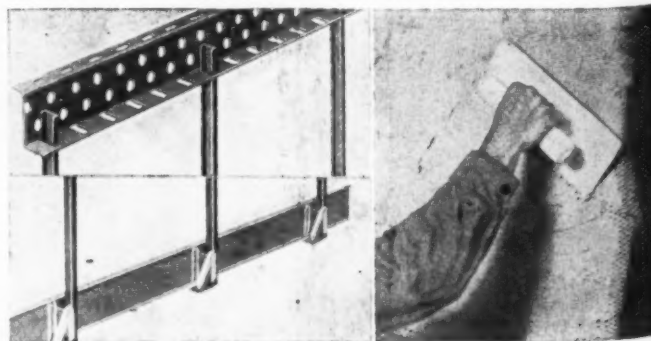
Example of fiberboard installation of the early '20's. Note how moldings contrast sharply with panels. Photo: Upson Co.

Remarkable improvements have been made in dry-built, full-wall panels during the last twenty years. Where formerly it was necessary to cover joints with narrow mouldings contrasting in color with the walls themselves, walls may be finished now in artistic panels or a smooth, unbroken expanse from corner to corner without cracks, breaks or joints of any kind. The thick, rigid panels may be applied directly to studding in new construction.

Gypsum wallboard has come into general use for dry-wall construction. Surface of the board is finished in an ivory shade that may be left undecorated or it may be painted, calcimined or wallpapered. Gypsum wallboard is also available with a wood grain surface and is popular where a wood panel effect is desired. Joints of



Example of modern expanded metal lath. Inset is corner bead. Photo: Milcor Steel Co.



Metal ceiling runner, studs, and base clips for 2-inch solid plaster partition. Photo: National Gypsum.

Materials and Methods for Finishing Interiors



Dry-built full-wall panel job of today. This material also may be finished smooth. Photo: Upson Co.



Insulating board tile ceiling job in modern solar heated home. Photo: Wood Conversion Co.



Walls of modern home finished in plywood. Photo: Douglas Fir Plywood Association.

gypsum wallboard are either square, beveled or recessed. These may be utilized to create various decorative effects or, by using a tape and joint cement, a smooth surface may be achieved. Gypsum wallboard is also available with a metal foil attached to the reverse side to act as an insulator and vapor barrier.

Within the last ten to fifteen years, insulating board manufacturers have developed a full line of factory-decorated interior finishes. One surface of the board is given either a smooth or textured finish and coated with paint in the manufacturing process. In addition to making this in several lengths of standard four-foot width, the decorative board is available in a variety of plank and tile shapes. The planking and tile boards are given joint treatments so they can be used for paneling

walls and finishing ceilings, and come in shapes that are adaptable to an almost limitless variety of wall and ceiling patterns. In new construction, decorative insulating boards can be attached directly to studding, with no further need for finishing or decorating. In remodeling and repair work, insulating boards have been widely adopted to apply over old wall surfaces or over furring strips to replace worn and disfigured interiors with new. In addition to their insulation value, decorative boards also have valuable sound quieting characteristics.

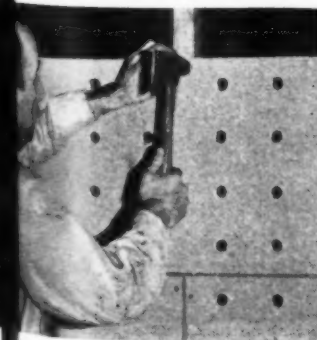
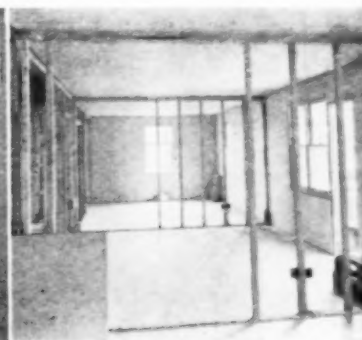
Because of improved mill finishes and refinements in stock design, wood wall paneling has staged a revival as an interior wall finish for average-priced homes during the last two decades. This has been particularly true of the vertical or horizontal board designs in knotty



Left to right: Application of Nu-Wood insulating board lath; plastering over Insulite's plaster base with metal clips between studs;



Celotex plaster base job ready for plasterers; Upson dry-built, full-panels fastened to outside walls with floating fasteners.



Application of Certainteed's perforated gypsum lath.

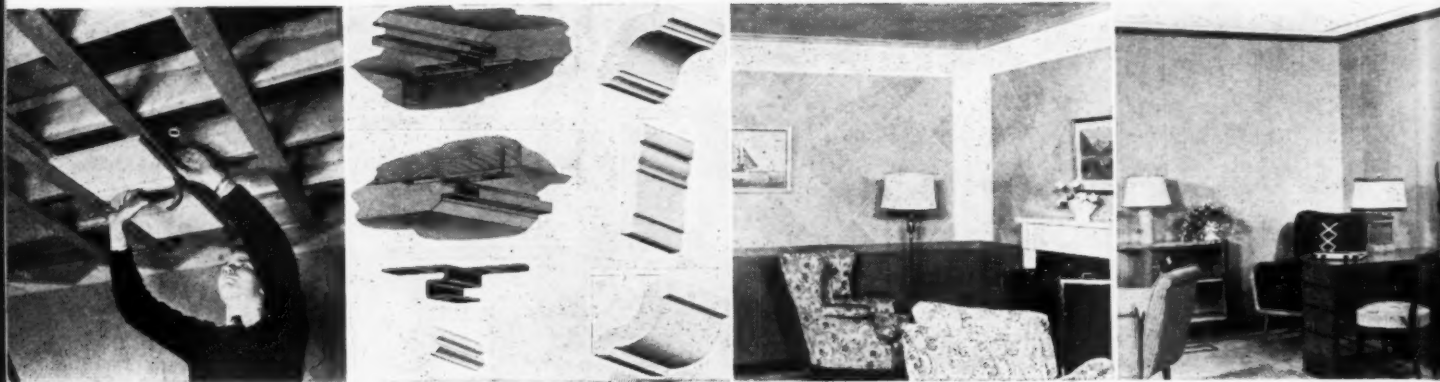


Bathroom job with Upson's Ducl-Thik fiber tile.



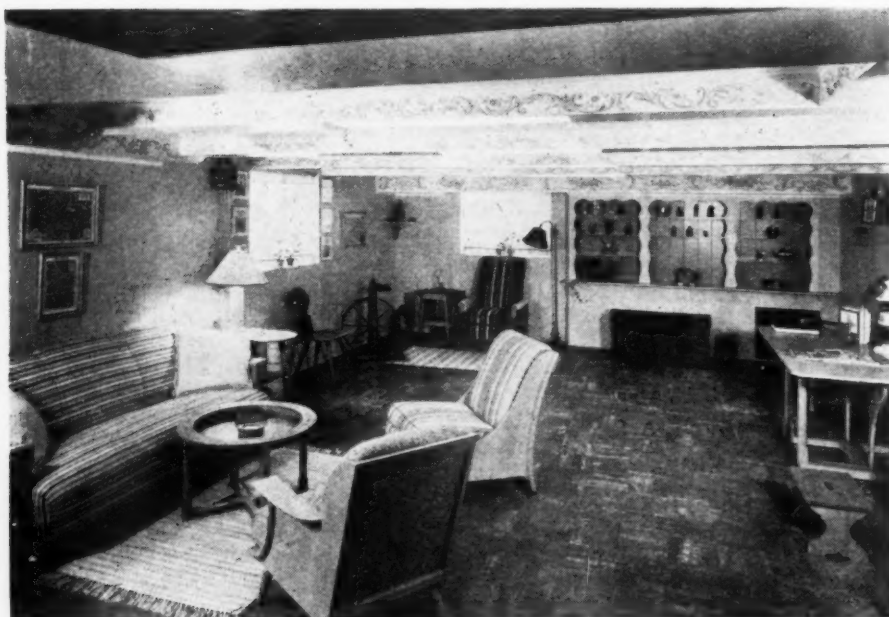
Two typical examples of bedroom walls covered with United States Gypsum Company's Sheetrock.



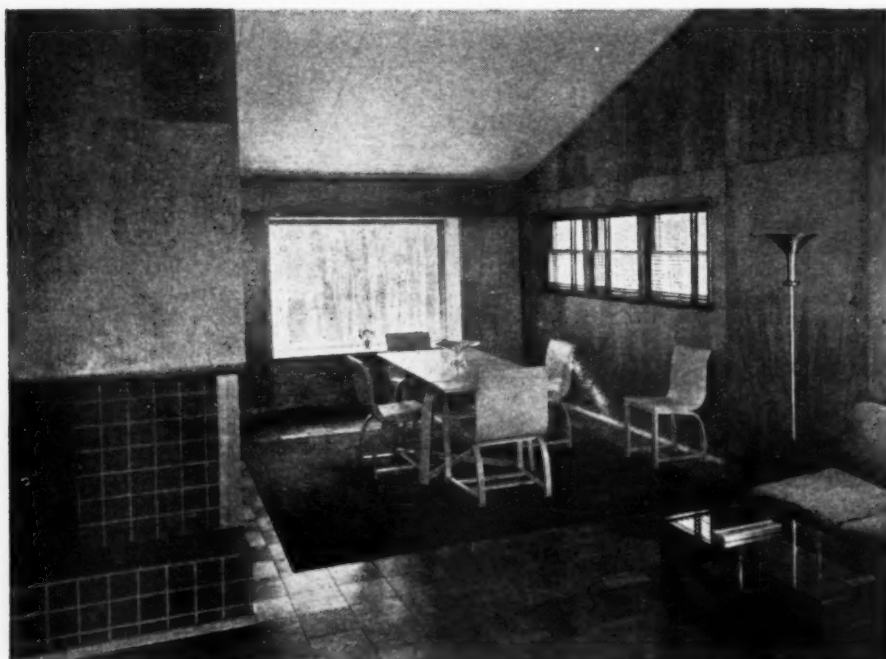


Left to right: Applying insulating board tile with concealed metal clips; detail of metal clips and decorative wood molding; finished

job with insulating board tile on ceiling and sidewall; sidewall finished with insulating board plank. Photos: Wood Conversion Co.



Douglas fir plywood panels applied vertically and grooved for plank effect were used to finish the walls in this basement recreation room. Photo: Douglas Fir Plywood Assn.

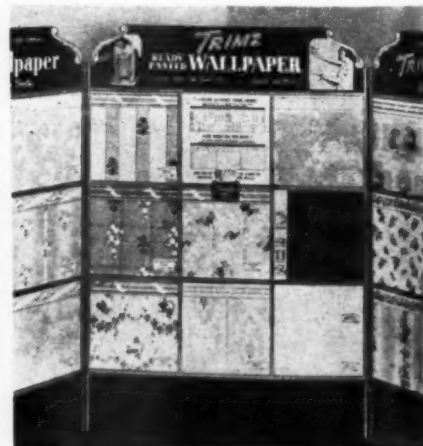


Hardwood plywood in combination with insulating board tile ceiling, ceramic tile fireplace exterior and wood block flooring was used here.

pine. Boards in random width from three to twelve inches are put on the wall in the same form as they leave the mill—surfaced, matched and run to pattern with an inexpensive molding along one edge to form a decorative joint between boards.

Softwood plywood is also a popular choice for interior wall covering. Ease of application and finish makes installation economical. A good variety of ingenious joint combinations has been devised by the manufacturers. Plywood-backed hardwood veneers have been designed for interior wall decoration in homes, and although more expensive than the softwood plywood panels, installation costs vary but little. Flexibility of plywood sheets as a result of refined manufacturing processes and improved bonds, adapts them well to the finishing of curved surfaces. Raised and flat wood paneling, more expensive than the board or plywood types, is the choice where such special effects are desired with wood. Specially designed lumber cut from cedar for use in clothes closets to retard damage from moths is also offered to home builders.

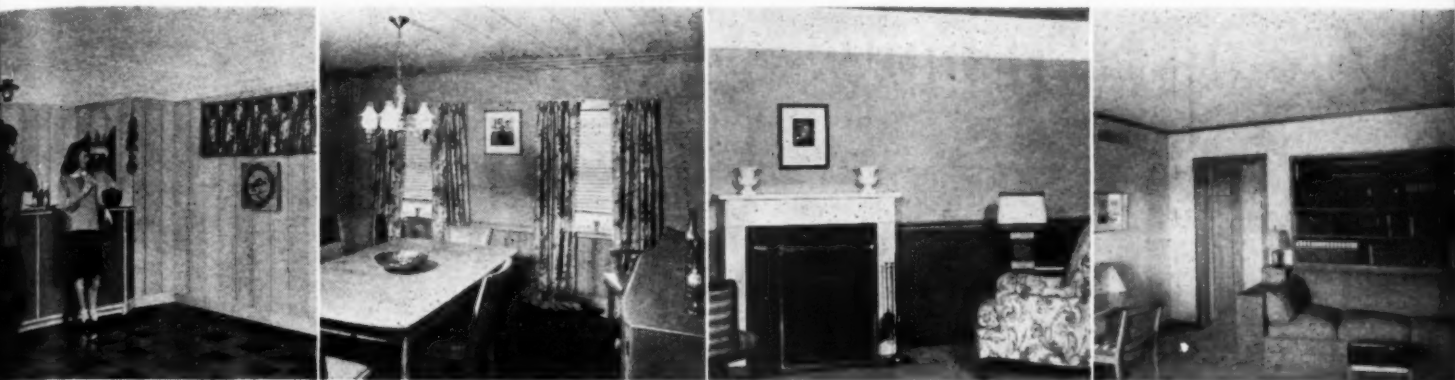
Refinements in bathroom and kitchen design have been aided materially by the ingenuity of wall finish manu-



Spectacular improvements have been made in wallpapers. Photo: United Wallpaper.

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Refinements in insulating board, hardboards and other dry-wall materials permit interesting and attractive in-

terior wall finish combinations such as the rumpus room at left, dining room, living room and study pictured here.

facturers who have developed a good variety for these rooms where the maximum hazards from moisture and stains exist. Ceramic tile manufacturers have beautified their lines and improved them to facilitate installation. A number of manufacturers offer colorful plastics and paint over fiber boards, in sheets or tile. Others are manufacturing metal tile coated with plastics, enamels and paints in a wide choice of color combinations. Linoleum manufacturers have developed special wall coverings for bathrooms and kitchens which are economical to apply and add beauty to the rooms. Structural glass makers within the last two decades have brought out products which have achieved popularity as wall finishes for bathrooms and kitchens.

Outstanding improvements in wallpapers in the last two decades provide home builders with the broadest choice of designs and types of that product ever offered. Recent developments include plastic-coated wallpapers, thermo-plastic wallpapers which are stainproof, greaseproof and mildewproof. DDT insecticide has also been incorporated in a new type of ready-pasted cedar closet lining.



Knotty pine interior effects such as this have become popular with home builders, not only because of beauty, but because of economical application factors.



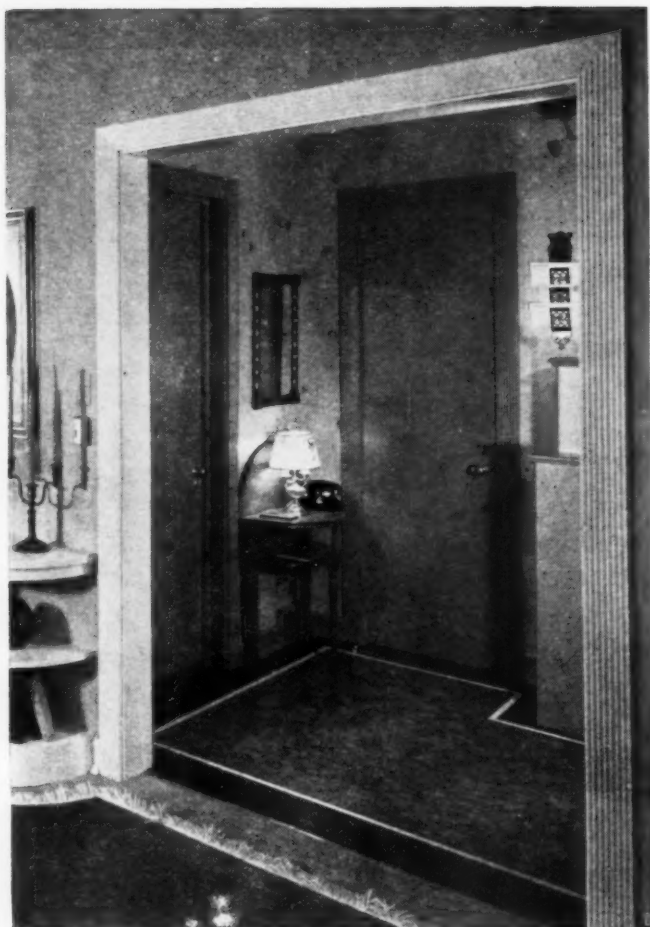
Knotty Ponderosa Pine kitchen cabinets and panelling, clear sugar pine drainboard and counter top and clear Ponderosa pine ceiling.



"Varlar," new stainproof wallpaper, was recently developed for industry.

DOORS • WINDOWS

Wood • Metal • Prefit
Screens • Weatherstripping



Attractive, easy-to-clean flush veneer doors are popular. Photo: U.S. Gypsum Co.



Aluminum window units are available for all-priced homes. Photo: Aluminum Co. of America

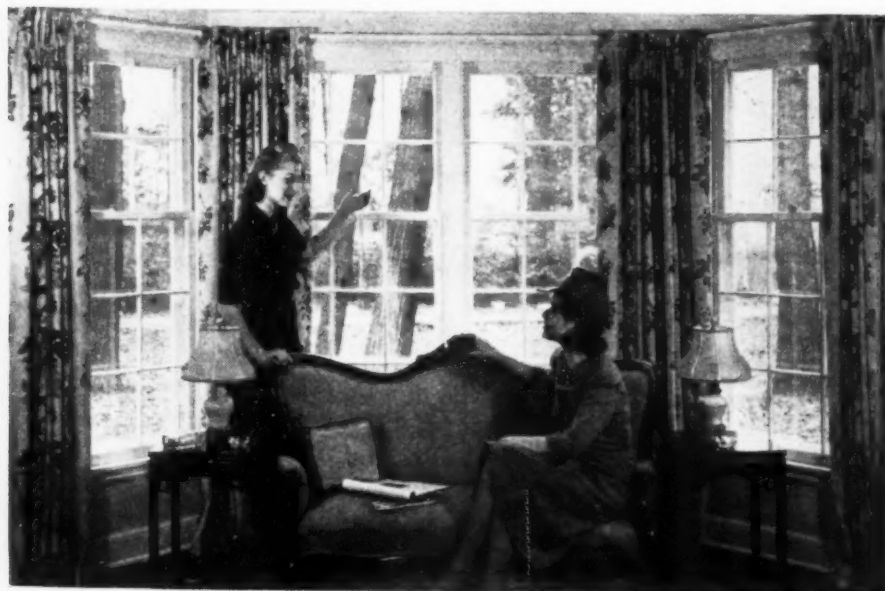
Refined Products Give Home Owners Efficient, Trouble-Free Operation

Refinements in design, manufacture and preservative treatment make these wood windows far superior to those of twenty years ago. Factory-fitting and shipment as units cut installation costs. Photo: Curtis Cos.

SUPERFICIALLY windows and doors in homes have appeared substantially the same for many years. During the last two decades, however, outstanding improvements in structural detail, standardization, glazing and labor-saving installation features have been achieved. Because most of these refinements are not visible to casual observers and home owners, the increased values of more precision manufacture, resulting in smoother and easier operation, better ventilation and longer life at less cost are not generally appreciated.

Improved machinery, more skilled personnel and better selection of raw materials have enabled wood window frame and sash manufacturers to cut parts to infinite accuracy. This, combined with better leak-proof joint designs of major manufacturers, provides today's home builder with wood frames and sash that make the structural details of twenty years ago appear archaic.

During the past few years, frame and window manufacturers have quite generally adopted the policy of furnishing complete window units.





Double-glazed horizontal gliding wood windows increase livability and home value. Photo: Andersen Corp.

factory-fit, ready for installation on the job, rather than separate frames and sash which had to be fitted at the time of installation. Complete wood window units with weatherstripping and sash balances installed at the factory eliminate additional costs and risks of haphazard work on these refinements at the site.

One of the outstanding developments in improving wood windows and frames, as well as doors and other woodwork during the last 15 to 20 years, was the inauguration of preservative treatment as a protection against fungus decay, stain and moisture changes. This was started on an appreciable commercial scale in the early '30's and today preservative treated woodwork is available throughout the nation.

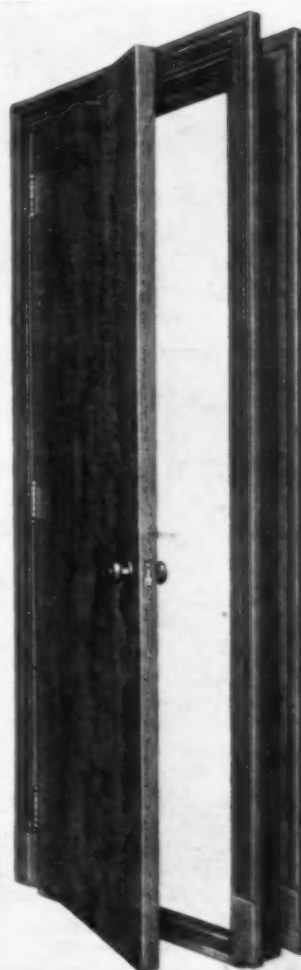
Larger windows, with the wide expanses of glass in picture windows and whole walls of glass providing unhampered vision, are supplementing the smaller window openings of former years, which is possible because of availability of storm sash to fit these openings. Furthermore, development of factory-fabricated window units of two or more panes of glass separated by a layer of dehydrated, scientifically cleaned air hermetically sealed between the panes is one of the biggest stimulants to modern picture windows, in addition to making pos-

sible the design of solar-heated houses. Plate glass is used extensively in picture windows.

The metal window industry has made tremendous strides in perfecting units for home construction during the last two decades. Today it is producing a wide variety of casements, double-hung sash, storm and screen windows in units that are glazed, screened and complete with wood casing and trim, ready for installation. Twenty years ago the steel casement consisted of bare essentials only. It was neither screened nor glazed and contained no casing or outside trim. Installation of such units in wood frames by workmen accustomed to working with wood frequently was unsatisfactory. Metal casement windows marketed today permit easy installation of storm sash and screens, whereas the earlier product was so designed that fitting storm or screen sash was a difficult and an expensive undertaking.

Ingenuity and enterprise on the part of window and door manufacturers have provided home owners of the present decade with a good variety of high quality combination storm and screen doors and windows. Conventional types require the removal of

A complete factory-fabricated door unit complete with all parts ready for installation. Photo: Roddis.



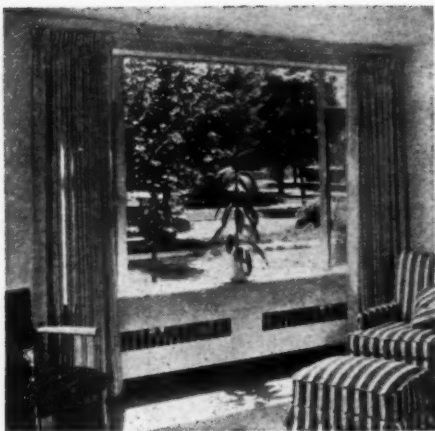
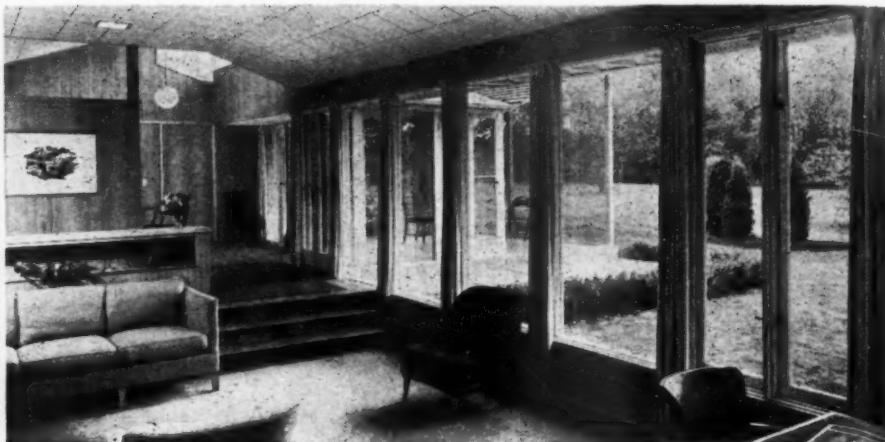
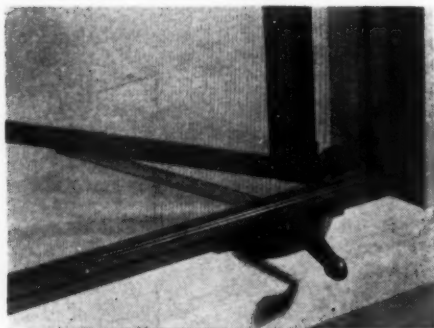


Plate glass picture window in modern home. Photo: Pittsburgh Plate Glass Co.

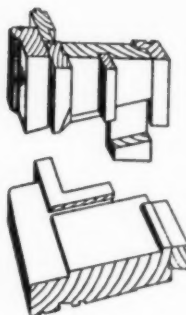


Example of larger window areas in modern homes as contrasted to those of twenty or more years ago. Photo: Libbey-Owens-Ford Glass Co.

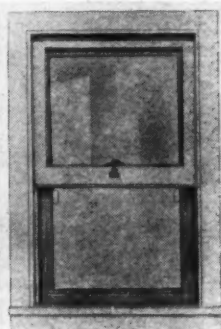


Modern metal casement with roto operator. Photo: Hope's Windows, Inc.

This engineered leakproof locked sill-joint in a wood window frame is one example of many such structural refinements available today. Photo: Andersen Corp.



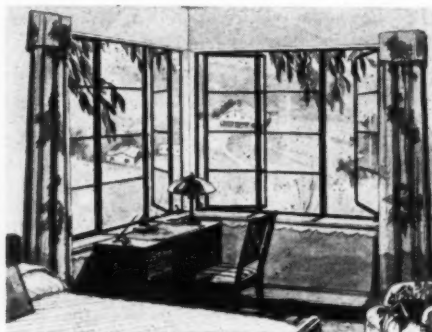
Metal basement sash with side-arm lock. Photo: Gabriel Steel Co.



All-metal combination window which incorporates all components in one unit. Lowering or raising of sash simplifies satisfaction of seasonal needs. For storm or screen sash. Photo: F. C. Russell Co.



Modern casements lighten cleaning job. Photo: Hope's Windows, Inc.



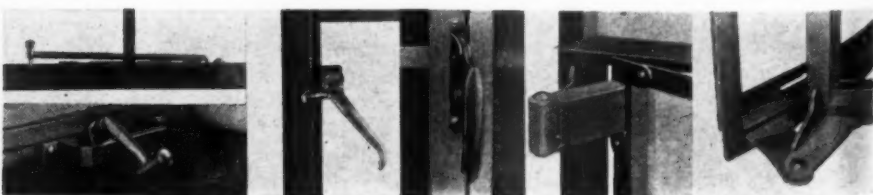
These modern steel casement windows cost no more today than the inferior 1925 product. Photo: Truscon.

only the glass or screen section of the door or window. Newest combination storm and screen windows, however, are permanent installations of both and require only the raising or lowering of the sash for a change in season.

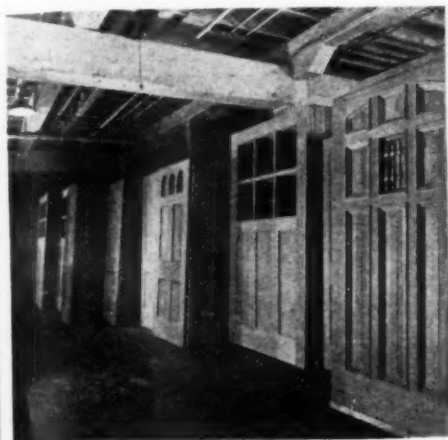
Refinements in materials and production of screen cloth have added their bit to progress in the last two decades. A wide variety of painted, galvanized, copper and plastic screen materials adds variety in color, and makes for more efficiency and longer life for these products.

Although door design and appearance, like that of windows, have not changed appreciably for many years, methods of manufacture, assembly of door parts and treatment of the product in the factory before it goes to the building site have improved tremendously during the last two decades.

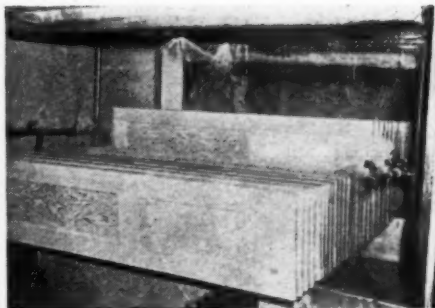
In addition to precision manufacture of parts, improved structural joints and refined finish, one of the outstanding developments has been the factory-fit door. These doors are precision-made, prefitted to exact size, resin-sealed and, if so ordered, machined for hinges and locks. Savings of from 30 to 55 minutes per opening have been reported by the use of prefitted doors. In keeping with the trend toward prefabricated factory-finished parts, at least one manufacturer has developed a door unit which is a complete opening, accurately manufactured to size, including the



Typical illustrations contrasting old and new in metal casement hardware during past twenty years. From left to right are the old and new adjusters, handles and hinges. Photos: Detroit Steel Products Co.



Pre-cut, pre-fit, pre-treated fir doors.



Spraying the protective priming coat on fir doors at factory assuring the ultimate user a better, more durable product. This treatment keeps dirt from penetrating grain of wood and simplifies final painting or finishing job. Photos: Fir Door Institute.



Pre-fit doors eliminate cutting, fitting.



Modern sliding and folding doors save space. Photos: Fir Door Institute; New Castle Products.



Plastic insect screen has six times the tensile strength of metal. Photo: Chicopee Mfg. Corp.



Installing plastic screen with small stapling machine. Photo: Monsanto Chemical Co.

door, jambs, stops, and casings, put together with the hardware applied, and finished according to specifications.

Formed metal door frames have attained a definite place in the home building field. Available in a good variety of styles they can be made to fit any width opening.

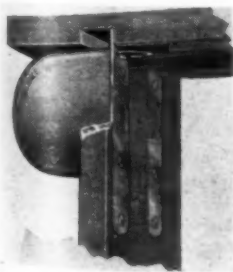
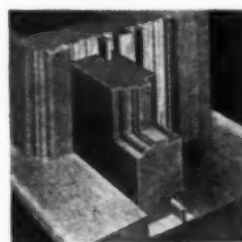
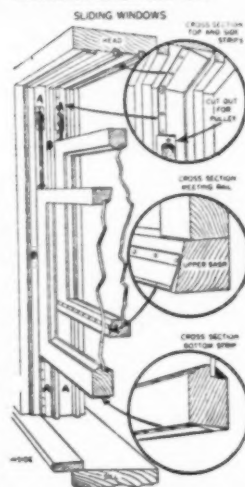
Where space is at a premium and elimination of swing area for doors is desirable, manufacturers of sliding and folding doors offer a ready, economical solution with products that have been given the ultimate in perfection and refinement of appearance and operation.

Quicker, cheaper window installation, easier working windows and improved protection from drafts, dust and dirt are available to modern home owners as a result of developments in the weatherstripping industry. Standard weatherstripping of twenty years ago was either a strip of spring bronze or a ribbed strip of metal fastened

flush against the window jamb. Strip- ping extended only half the vertical length of the jamb and had to be cut away to provide room for rope and pulley carrying the sash weight. Modern weatherstripping provides a separate and continuous metal channel the full height of the jamb for each sash of a conventional double-hung window. Zinc and bronze continue to be the metals used in the majority of weatherstripping, and probably eighty per cent of the weatherstripping installed today is known as the rib strip type—a metal rib operating in a groove in the sash.

The finely engineered sash balances of various types now offered by a number of manufacturers have not only made the job of weatherstripping easier but provide smoother, quieter window operation. In spite of an inflated market today, many of these modern sash balances are available for as much as twenty per cent less than they cost twenty years ago.

Illustrations showing typical contrast between old - type metal weatherstripping and that of today. At top is spring bronze strip- ping in common use during early 20's. Note from lower picture that with modern type weather- stripping the window sash is completely surrounded by metal. Because this new stripping is supplied in complete units, installation costs are less than with the old type. Photo: The Security Co.



This improved modern sash balance sells for twenty per cent less than it did in 1925. Photo: Caldwell Mfg. Co.



The spring tension in this adjustable flat sash balance can be regulated exactly to compensate for weight of sash. Photo: C. Church More & Company.



At left is a modern spiral sash balance. Photo: Milwaukee Stamping Co. At right is new combination metal weatherstripping and sash balance unit. Photo: Zegers.



STOCK WOODWORK

Cabinets • Stairways • Entrances
Interior and Exterior Trim • Built-ins

Highly Refined Design and Quality in Today's Woodwork

WOODWORK manufacturers of 1946 offer home builders the greatest variety of finely styled, precision-made stock woodwork ever available. Because of modern mass production methods employed by leading stock woodwork manufacturers, all the important advantages and refinements of these major house components are available at lower cost than when each item was fabricated on the job according to detail.

Services of some of the nation's leading architects are employed by producers to give today's moderate priced houses woodwork to conform accurately with any style architecture—Colonial, Modern, English, Spanish, or any other. In addition to offering a wide variety in entrances, mantels, moldings, cabinets, closets, stairwork, built-in bookcases, etc., the structural qualities of these items have been engineered to produce items that cost less to install but last longer. Many of the standard designs of these items are changed but little in their over-all appearance from that of one hundred years ago, but many improvements such as in workmanship, prefabricating, rot-proofing and structural refinements which are not apparent on the surface have been developed to speed installation and reduce costs.

During the last two decades, elaborate decorative woodwork has been largely eliminated in favor of that which not only decorates but is more functional in the home. Stairways have been streamlined with small volutes and plain balusters as compared with the intricate lathe work



Corner of living room illustrating a few of the items furnished by stock woodwork manufacturers. Photo: Ponderosa Pine Woodwork Assn.



Example of front entrance design of early '20's. Photo: Curtis Companies.



Two typical 1946 corner china closets. Photos: Curtis Companies.



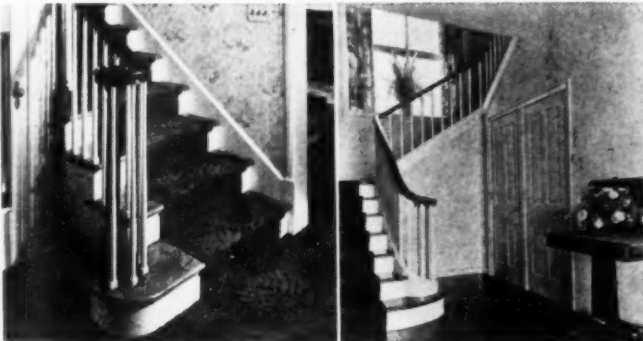
Built-in closet area with vanity. Photo: Ponderosa Pine Woodwork Assn.



Two examples of factory-built closets with sliding trays. Photos: Ponderosa Pine Woodwork Assn.



Example of expertly designed entrances of today. Photo: Curtis Companies.



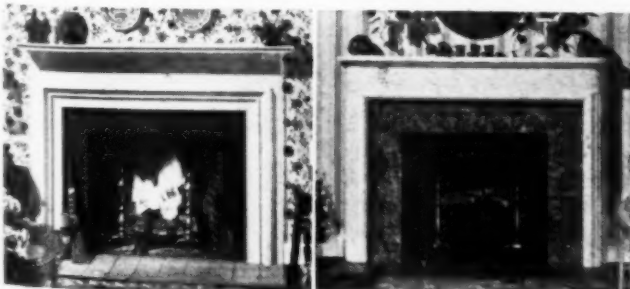
Factory-made stairways cut costs. Photos: Curtis and Ponderosa Pine.



Telephone cabinet. Photo: Curtis.



Linen closet. Photo: Ponderosa Pine.



Two of the many beautiful factory-made mantels priced to go into average homes. Photos: Curtis Companies.

and hand carving of years ago. Casings and bases are narrower, but many of the profiles of older days are still in use. Ceiling beams, panel wainscoting, colonnades, etc., have been largely eliminated.

Only as recently as 1935 did the practice of preservative treatment of stock woodwork become general among woodwork manufacturers, and it was not until several years later that this treatment of parts other than doors and windows became general. Today preservatives to prevent fungus decay, stain, and distortion due to rapid changes in moisture content are also used on cabinet work, stair work and other fine woodwork.

Woodwork manufacturers have contributed to the modern home many important refinements that add value and livability. Careful studies and design have enabled the industry to produce a number of built-in closets which contrast sharply with the old, shell-like, dark, inconvenient affairs of former years. Sliding trays, instead of shelves, small compartments for individual articles, shoe racks, shelves designed especially for linen closets and for the inside of closet doors, are only a few.

China closets, prefabricated, ready for assembly, blend with the decorative and architectural theme of a wide variety of dining rooms and hold the cost of such features to a minimum, while giving the home owner the best in design and workmanship. Some of the finest characteristics of furniture design and decorative wall treatments ever conceived are embodied in the wood mantels offered today. The mass production of these attractive units has been a factor in reducing the cost of fireplace finish to help bring this added feature within the means of more home builders.

Decorative cabinets for telephones and knick-knacks along with a varied selection of factory-made bookshelves have been important contributions to increased home attractiveness and livability. Parallel with the trend for more bathroom facilities in every home, woodwork manufacturers have come forth with powder-room accessories in the form of built-in vanities and alcoves that bring these luxuries within the means of average builders.

Wide use of insulation in home construction brought about the need for attic louvers, which woodwork manufacturers were quick to produce in a good choice of finely constructed shapes and designs.

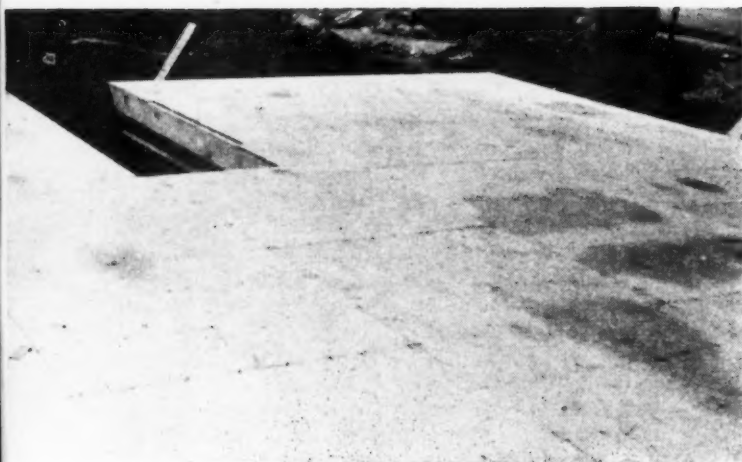
The mass production of pre-fit, ready-to-assemble woodwork has been a major factor in reducing on-the-job labor costs in home construction, while at the same time offering home builders better designed, longer-lasting woodwork products.



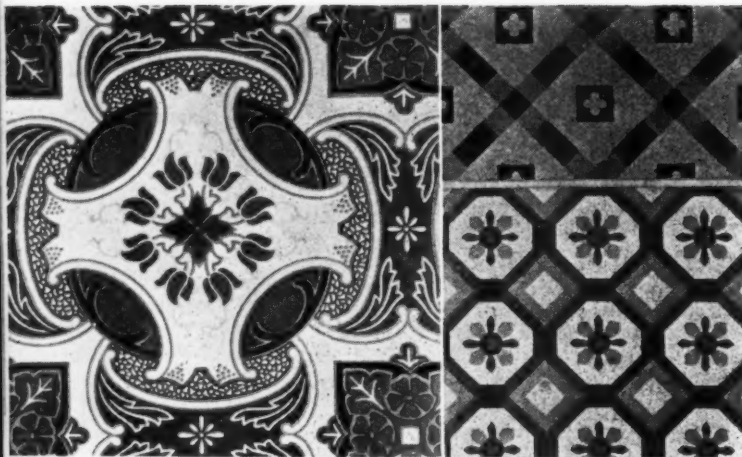
One example of built-in cabinets and bookshelves which woodwork manufacturers have made available for home builders. Photo: Ponderosa Pine.

FLOORS • COVERINGS

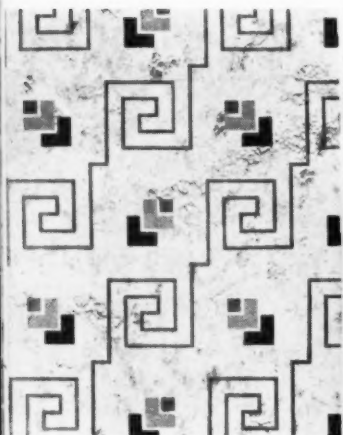
Wood • Prefinished Hardwood • Prefabricated Wood
Linoleum • Asphalt, Rubber, Ceramic Tile



Subfloor of plywood provides a smooth, uniform base for the prefinished flooring of linoleum, asphalt tile or wood.



One pattern of print and two of molded inlaid linoleum that were extremely popular more than two decades ago. Photo: Armstrong



The latest straight line design. Photo: Armstrong



The modern effect in the model bedroom and living room shown above has been enhanced by the striking and novel patterns introduced in the embossed and jaspe linoleum. Photo: Armstrong



Advancement in

THE kind and type of flooring used in the construction of houses today depend in a great measure upon the individual's choice. Wood still remains the universal standard for residential floors in spite of the great advances made in the use of linoleum, asphalt tile, ceramic tile and other materials.

Wood is available in sufficient varieties of color, style, and form to match any architectural mood. A wood floor may be hard or soft wood, solid or laminated, edge grain or flat grain, narrow or wide boards, mixed widths, in patterns of boards or in blocks. It may be nailed, laid in mastic, or pegged to an underfloor.

Notable changes and improvements in hardwood flooring have been developed—particularly in prefinished strip, plank and block type patterns. This material is completely prefinished in the factory and securely boxed in cartons to insure its arriving safely on the job. Briefly, the advantages of prefinished flooring as against the old type floor are: the finish is more beautiful, uniform, and durable than could be obtained through ordinary methods. The owner can see in advance exactly how the finish will appear and can select the shade desired. The litter and inconvenience of finishing on the job are eliminated, and last, a considerable amount of time is saved.

One of the most forward steps in the perfection of hardwood floors taken in recent years has been the development of new and more efficient finishes. It is known as penetrating seal. As the name implies, the finish penetrates into the pores of the wood and seals the minute wood fibres. In effect the finish becomes a part of the wood itself. It is easily maintained with a film of wax and, in cases of extreme wear, worn areas can be renewed without leaving a patched effect.

The basementless house usually starts with a concrete slab laid directly on the ground. This immediately poses the problem of what kind of flooring available today will perform satisfactorily on such a subfloor. Probably the most satisfactory answer to that question is asphalt or rubber tile.

These tiles have been used for a great many years in basement areas; particularly in game and recreational rooms. They have demonstrated ability to stay down on such subfloors without loosening or disintegrating from dampness. From a functional standpoint, there seems no question that asphalt or rubber tiles adequately meet the requirements of flooring for a basementless house. Fortu-



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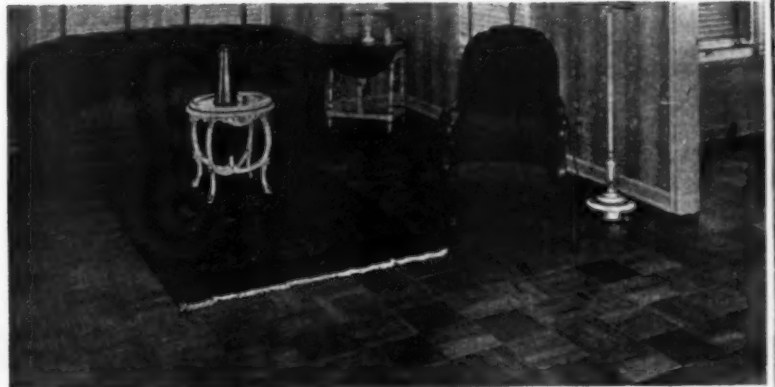
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Materials Provides Floors of Lasting Beauty



Method of applying prefinished block flooring to wood sub-floor is indicated in this illustration. Photo: E. L. Bruce



Wood block flooring adds distinction and individuality. It is popular for remodeling as well as new construction. Photo: E. L. Bruce

nately for today's builder and home buyer, these tiles are available in a wide range of attractive colors and a variety of sizes, which make possible an almost endless number of pleasing designs and floor patterns for residential use. Feature strips and borders, which enhance the appearance of any floor, are also available.

The growing appreciation of design is the most recent development in decoration. Pattern, whether on floor, walls or fabrics, gives sparkle and life to an interior. On entering a room one is at once conscious of the fixed background. When these elements are well handled, the first step toward successful decoration is assured. No one feature so establishes atmosphere as a well designed floor. Of the various floor treatments, linoleum offers the widest opportunity for decorative effects.

In the modern house of today, linoleum plays a more important part than ever before. To meet this challenge a better product has been developed; a finer blending of colors, and a greater variety of designs are now being offered to the building public.

Floors of all types will play an important part in the future as well as in the past in the overall development of the house. They are not an intrusive, obvious part of the room, but they play a subtle, quiet role in forming an opinion of a room or house. One may not be aware of the factors which influence the appraisal of a decorating scheme, but one can be sure that underfoot appearance has a great deal to do with the result.



The carpenter shown in the picture above indicates the ease with which prefinished hardwood flooring can be installed.



A marked improvement in floor surfaces shown in the installation of prefinished hardwood flooring. Photo: E. L. Bruce



From the plain and marbelized patterns of asphalt tile used on the floors of the recreation rooms shown above, it is possible



to produce an unlimited number of interesting and attractive designs using standard units throughout. Photo: Johns-Manville

ELECTRICAL LIVING

Wiring • Outlets • Lighting
Telephone • Television • Radio

Adequate Wiring Essential In Modern Mechanical Home

**Efficient living requires that
builders install modern electrical
equipment and devices in homes**



This fixture was commonplace twenty years ago.

ELECTRICITY today is accepted as a vital part of every home and yet it is not too many years since the use of the pine torch, the candle, rock oil and, finally, the gay nineties' gas jet.

In the time of the pioneers the progress of an empire depended solely on human energy, expended during daylight hours. Within a few years, time labor has been mechanized and the electrical servants cater to the needs of a nation. This has created a safer, healthier and happier design for living.

Electrical improvements contained in the modern house, together with the machinery powered by electricity that makes such homes possible, can safely be termed miracles. Advances in the art of electrical design have been dictated by the rapid progress in electrical living by American home dwellers, as well as the change and improvements in home design.

Electrical facilities provided in the 1926 home can no more serve the standard of electrical living which is commonplace for the 1946 family. The figures tell their own story. In 1926 the average American family used slightly more than 400 kilowatt-hours per year. During 1946 the average rose to about 1225 kilowatt-hours, with the rise becoming most rapid during the war years, when no new appliances were available. This is an indication of the radical increase in the use of electricity in the average American home of today.

Living equipment can now be arranged exactly as desired. Additional wiring and additional circuits protect today's homes from electrical overloads. The improved ideas and facilities that form the basis of electrical living are available for each room in the house.

The back-breaking work in old home laundries is abolished by modern laundry facilities. The wooden wash tub has vanished and the automatic electric washer has taken its place. Electric dryers make it unnecessary to consult the weather bureau before washday. The sad iron is obsolete and electric irons and ironers lighten the housewife's task.

Years muffle the memory of faces, scenes and sounds, yet the kitchen of yesterday is recalled vividly in contrast to the present-day kitchen which is convenient and efficient. The fireplace with swinging caldrons, and the wood and coal burning stoves are relics of the past. In their place is the easy-to-clean electrical range, so automatic a meal can be put in to cook and forgotten. To preserve foods the deep freeze units are a boon to more convenient living. The modern electrical refrigerator insures protection of food from loss by spoilage. It also assures a more economical expenditure for good foods. This is a far cry from the spring house and root cellar. Food mixers, toasters, coffee makers, roasters have all lightened the tasks that allowed grandmother little time for other interests and pleasures. A



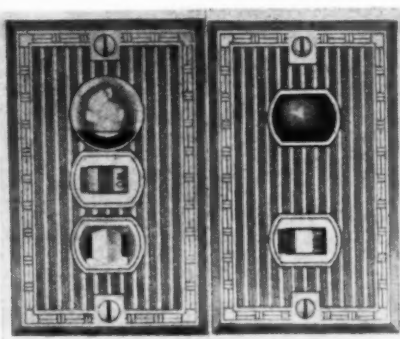
An innovation unknown to builders 20 years ago is the fluorescent light. Photo: R. W. Willy.



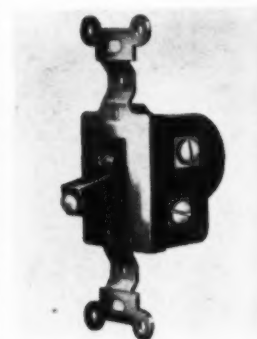
A 1946 convenience to the home owner — Laminite



This device is a new development. Photo: Westinghouse



Modern plug-ins and switches have signal lights. Photo: Pass & Seymour



An example of a modern switch. Photo: T. J. Mudon

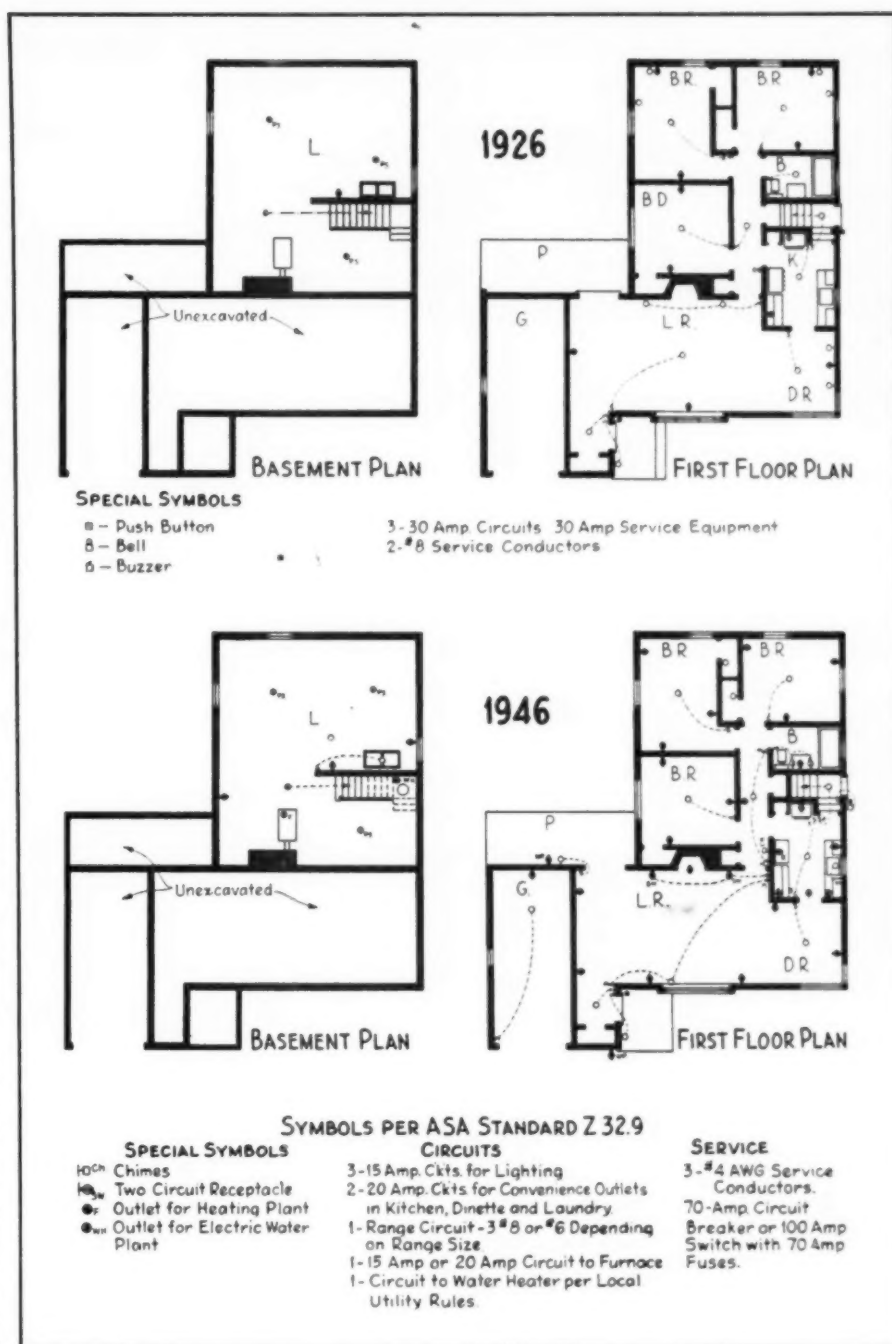
hundred other burdens have been replaced by conveniences now taken for granted. Ventilating fans dispense with odors, garbage disposers save time, dishwashing machines eliminate an ever-present chore.

There is a place in each room of the modern home for the wonders of electrical science and industry. Utility rooms now have heating and cooling units that provide healthful, comfortable year 'round air conditioning. New electrical controls permit the home owner to keep each room or section of the home at the most desirable temperature. An electronic device has been designed to minimize endless chasing of dust and dirt and improve family health. These are but a few of the electrical advantages offered for convenience and comfort today.

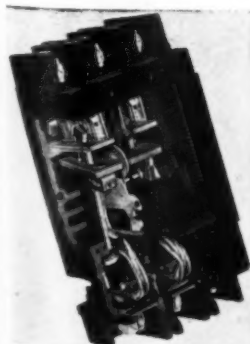
In the kitchen and laundry electricity acts mainly as a servant, taking over the unpleasant tasks of house-keeping. But, in the bedrooms and bathrooms electricity shows its versatility, bringing luxurious comfort and convenience.

No electrical device can achieve prime importance over another according to everyone's standards. One of the most essential, however, is lighting. The right kind and correct amount of light for see-ability is a creature comfort available to all. Wall bracket lights, two pair in the living room and one pair in each of the two most desirable bedrooms, were "high style" features of the 1926 home. Fluorescent light is a modern idea in home decoration. Fluorescent tubes arranged in strip lighting provide a high level of general illumination, practically shadowless and glareless. Dark closets are now illuminated, very often controlled by an automatic door switch. Exterior and interior garage lighting is desirable and should be planned to meet the particular needs dictated by the location of the house. Invigorating "sunlight" at the flick of a switch, new and improved lamp bulbs, light

(Continued to page 176)



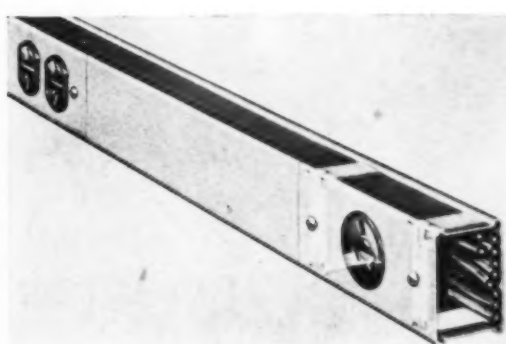
Back in 1926 the National Electrical Code recommended that circuits be figured on the basis of one for every 12 current-consuming outlets. Progress is reflected in a comparison between the number and location of fixed lighting outlets in the two wiring plans shown above. The 1926 plan makes a special feature of the light at the front door, but neglects the very practical aspects of entrance and porch lighting. In the 1946 plan wall bracket lights are missing, as is the living room ceiling light. Drawing: National Adequate Wiring Bureau.



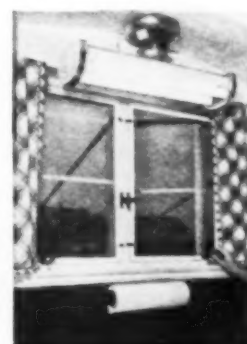
Shown above is 1946 circuit breaker. Photo: Square D



One of the modern load centers. Photo: Frank Adams



Many builders find this surface duct demanded by the far-sighted home seeker of today. Photo: National Electric



Housewives appreciate this luxurious fluorescent lighting.

PAINTS · VARNISHES

The Product and Application

New Methods, Materials Meet Today's Needs

During the past two decades the Paint and Varnish Industry has progressed with the times and has developed machinery and techniques to keep pace with modern needs

OF the various branches comprising the broad construction materials field, the paint and varnish industry in point of scientific advance during the past twenty-five years has kept pace with the best of the contenders for such honors.

There were fine paint jobs turned out years ago, but such jobs were the result of many coats and laborious operations that would be out of sight with today's high labor costs. Moreover, some of these old finishes would suffer in direct comparison with modern materials.

The making of paint was among the very early American industries, having been started as far back as 1754. However, for many years the infant industry remained in its cradle as the bulk of the paint materials used was imported from Europe. Although the corroding of white lead in this country dates back to about 1807, most of the white lead came from England even as late as the Civil War period. The growth of the industry from the latter part of the nineteenth century kept abreast of our growing national population but, in contrast with the past fifteen or twenty years, there was no spectacular advancement in methods or materials.

The World War I era found paint and varnish manufacturers producing their finishes in pretty much the same way they had been making them for the previous forty or fifty years.

The ability of a varnish factory to turn out good products depended almost entirely on the individual skill of its "varnish maker," just as the culinary success of a restaurant depends on the art of its chef. Varnish making was a knack rather than an exact science. The old-time varnish maker developed skill in melting down rosin and fossil gums and blending them in a kettle with a few available oils and solvents to produce something that could be used as varnish. His knowledge, thus developed, was his stock in trade. He guarded it jealously and seldom imparted it to his employer. As a consequence, if he had occasion to change jobs his secrets went with him and the factory could no longer produce

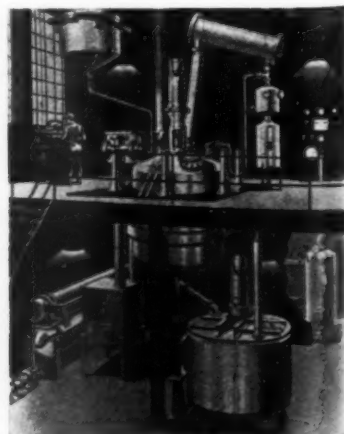
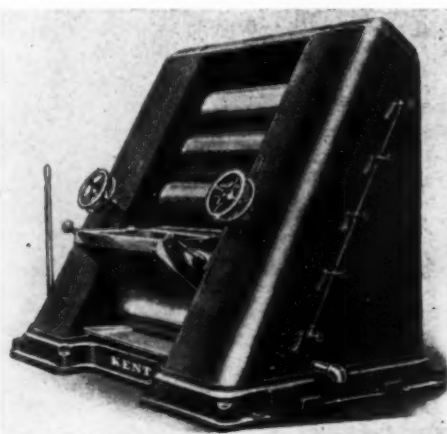
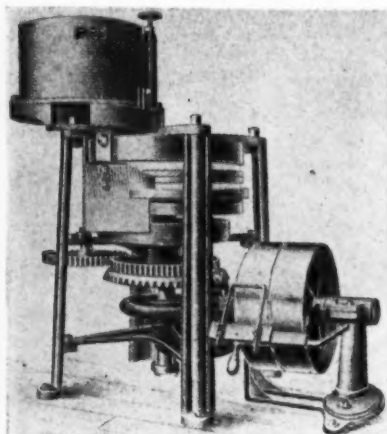
the same products. Even where the manufacturer had his own set of formulas, results still rested on the varnish maker because raw materials were extremely variable in essential properties and would not always react the same when processed. The expert varnish maker could, to a degree, compensate for these irregularities by adroit kettle manipulation but such treatment could not be described in formulas.

The industry's rapid emergence from adolescence to full fledged maturity in recent years represents largely an exchange of the empirical practices of the past for the science of modern chemistry, aided by the advanced design of production equipment. The trained chemist specializing in oils, resins, etc., has replaced the old-timer who somehow got along by rule of thumb.

Refinement of old raw materials to give them predetermined performance, and the development of many new ones have made it possible to control production with mechanical precision rather than by human knack. New pigments like titanium have given paints covering power undreamed of in the previous generation. The introduction of nitro-cellulose lacquers completely revolutionized vehicle and industrial finishing overnight. The adaptation of synthetic resins to paint and varnish production resulted forthwith in drying speeds and durability improvements that would have been just wishful thinking a few years previous.

The perfecting of the products of an industry is just part of the battle for achievement. The nation's industrial life has become so highly developed and complex that entire industries must compete with other totally different industries for the public's attention. It is of vital importance to all dealers and contractors that the paint and varnish industry is now paralleling its scientific conquests with feats of real merchandising. Parallel with these developments, constant advertising by the paint and varnish industry has awakened the public to the idea of painting to beautify as well as to preserve. New colors

(Continued to page 184)



Evolution of paint making machinery beginning with old stone pigment grinder at left to modern, scientifically controlled machines at center and right.

Glass Sets the Pace in Modern Home Design

Refinements in the product at no increase in price permit wider uses and add livability

IMPROVED manufacturing techniques and dramatic new glass products have combined to lower glass prices, and at the same time provide builders and architects with the most important items in the creation of the brighter and more open homes of 1946. Since 1926 glass prices have declined steadily, and new glass products and new uses for glass in building are almost endless.

Large wall areas, punctuated twenty years ago with a few small windows, today are batteries of windows. Development of hermetically sealed double pane, large area sheets has made possible entire walls of clear glass. Because of a dead air space between the sealed panes, these large glass sections, developed recently, have insulating values that make their use practical in any climate. The invention of glass block with both structural and insulating qualities has contributed countless new interior and exterior uses for glass, with resulting brightness. This new product provides either translucence or transparency in walls or partitions.

Another outstanding glass invention about fourteen years old is a structural glass, a polished plate product which is processed by heating and chilling in a manner similar to that used for steel. The glass, having great strength, comes in both flat and bent plate in either single or laminated units, and has opened an entirely new field for interior styling of homes and other buildings.

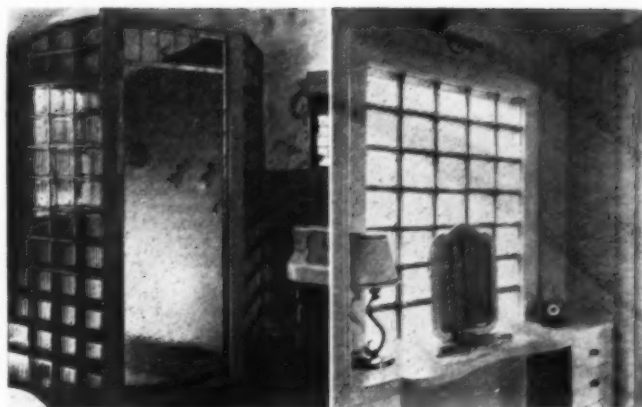
The average home built in 1946 uses 25 to 50 per cent more glass on the exterior than in 1926, while the use of glass for interiors, both new and old, is approaching a 50 per cent increase over the amount used twenty years ago.

Today, picture windows covering large wall areas, entire walls of clear glass or glass block, stronger, thinner structural mirrors over fireplaces or full length mirrors in doors, structural glass in bathrooms and kitchens, prefabricated plate glass shower units, built-in wall niches with glass shelving and tinted mirror glass backgrounds, glass block partitions in bathrooms, and plate glass for furniture tops are but a few of the many new and growing uses for glass.

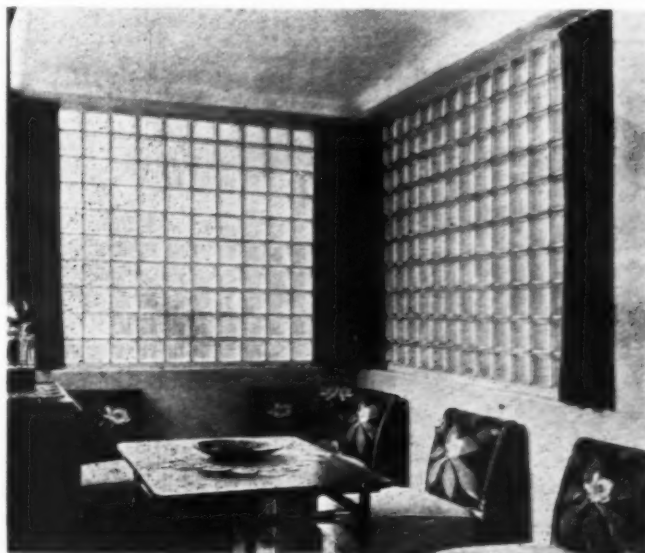
PROGRESS 1926-1946

GLASS

Glass Block • Mirrors • Structural Glass



Above left: Modern shower stall of block and plate glass. Above right: Glass block used in bedrooms. Photo: Owens-Illinois Glass Co.



Recreation alcove facing undesirable view in city made attractive by use of two glass block panels. Photo: Pittsburgh Plate Glass Company



Framed and unframed full length structural glass door mirrors, unframed structural mirrors over fireplaces, sandblasted designs in mirrors, struc-

tural glass furniture, and tinted or untinted glass shelving are popular in the new homes of 1946. Photo: Pittsburgh Plate Glass Company.

PROGRESS 1926-1946

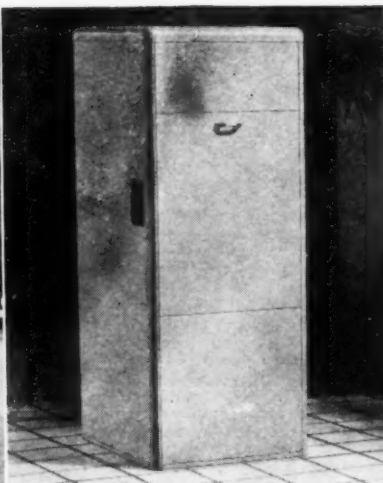
HEATING

Air Conditioning • Automatic Controls and Equipment

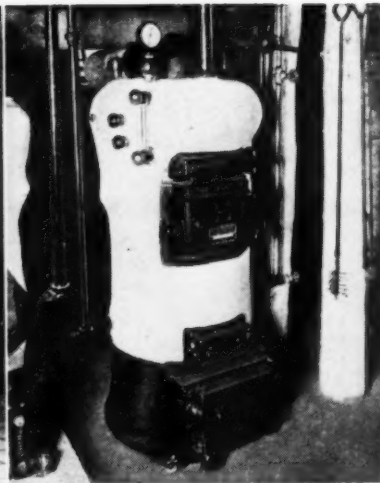
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From Simple Heating to

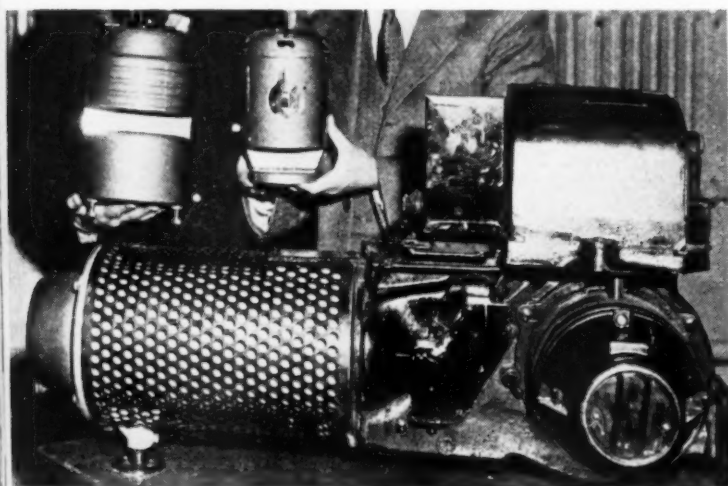
Host of developments in heating and air conditioning provide new living comforts, permit new basement uses



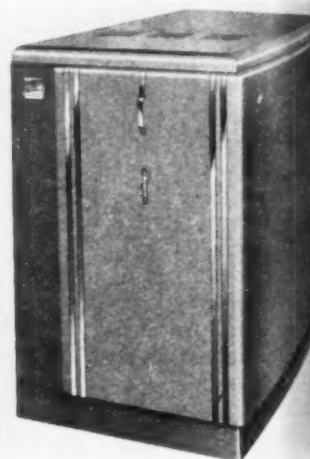
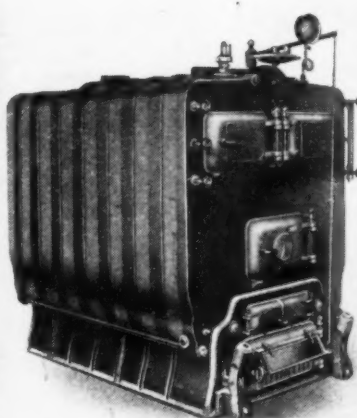
1926 gas-fired unit at left weighs about three times its modern air conditioning successor at right, requires much more floor space, and costs more. Photos: Surface Combustion Corp.



In the comparison of 1926 and 1946 coal fired boilers above, decreased weight, vastly superior styling, and addition of an automatic stoker are illustrated. Photos: American Radiator and Standard Sanitary Corp.



New light-weight simplified conversion oil burner compared with 1925 model having 480 parts, weighing 320 pounds. Photo: Timken Silent Automatic Division, Timken-Detroit Axle Co.



Another striking comparison showing difference in sizes, weights, heating refinements and firing methods of furniture-finished enclosed new boiler and that of two decades ago. Photos: United States Radiator Co.

OF all the fields to which engineering skill and science have been applied during the past twenty years, none have shown more phenomenal development in increased efficiency and greatly improved styling than the interior climate equipment and appliances industries. No more graphic illustration of this truth could be presented than the comparisons offered on these pages between examples of the latest and most improved models of 1926, and the

streamlined, lighter and decorative models of today.

Decorativeness, however, is only the deft touch of the merchandising-minded designer to new creations that are lighter in weight, lower in price, more economical to operate, and which reach degrees of efficiency in producing uniform, controlled heat that were unthought of twenty years ago.

Improvement and invention are evident all along the line from fuels

and fuel feeding devices to room temperature controls. Twenty years ago what is now known as indoor climate control was simply home heating, and it was largely an inefficient manual operation. The evolution has been to automatic heating and cooling, filtered air, and moisture control.

Consider the radiator heating systems first—hot water, steam, vapor and vacuum. From the gravity circulating hot water systems of old

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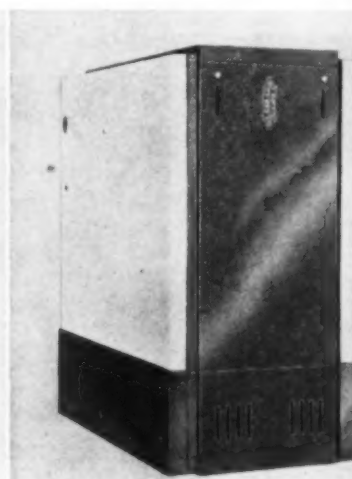
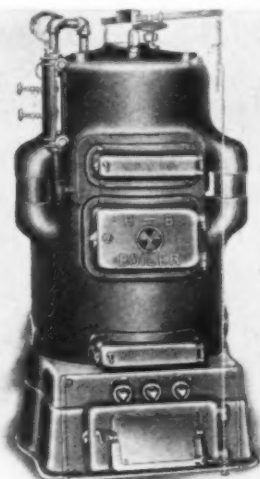
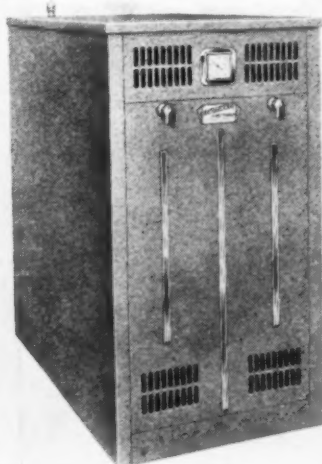
have come the forced circulation systems in which a small fractional horsepower motor insures quick and complete circulation throughout all the rooms of the house. When a modern thermostat calls for heat, the pump starts, and with almost no delay the hot water starts to flow. Boiler temperature is regulated by a

requirements of the room it serves. This improvement adds uniformity and efficiency to one-pipe steam systems.

Two-pipe steam systems, while they cost more than one-pipe systems, afford greater convenience than many owners consider to be worth the difference in price. Thermostatic

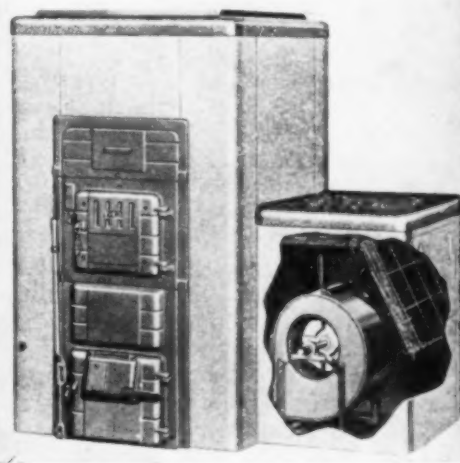
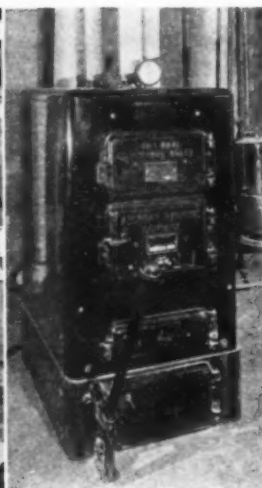
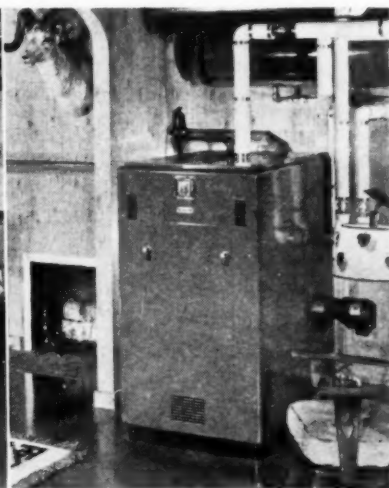
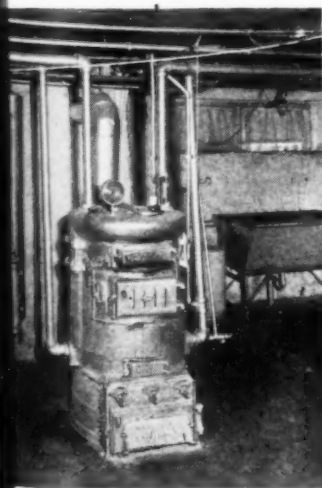
or coal firing (hand or stoker), or for conversion from any one of the fuels to another.

In the oil burning boilers, scientifically determined fire travel distance, longer flues, and baffles and fins to trap and thoroughly circulate combustion gases for maximum use before they are discharged through



1926 hot water boiler at left is hand-fired, had no jacket and required constant attention. Modern unit at right is neat in appearance and automatically delivers heat to every room. Photos: Thatcher.

The hand fired steam radiation boiler at left weighs 1225 pounds. The new 880 pound streamlined unit at right is automatically fired with oil, gas or coal. Photos: The H. B. Smith Company, Inc.



The old hand-fired coal burning boiler at left gave little incentive to decorate and furnish basements for recreational purposes. Compare it with the 1946 automatic steam boiler at right. Photos: The Crane Co.

One of first jacketed boilers, at left. Hand-fired heating and air conditioning unit at right. Cutaway section shows filter, circulating fan. Photos: American Radiator; C. A. Olson Mfg. Co.

control, lower for mild days than for cold ones. Use of the pump permits smaller pipes to be installed with consequent savings to the owner.

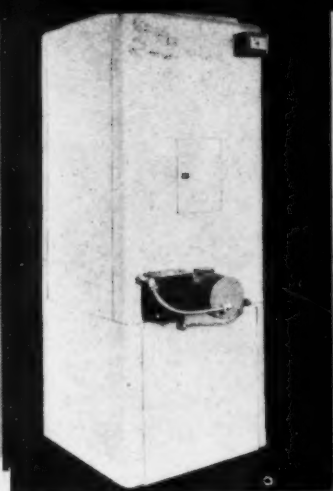
The simplest type of steam system is a one-pipe system. Special vacuum valves are available by which a one-pipe system can be converted into a partial vacuum system. Equipped with adjustable caps which regulate the sizes of the air vents, each radiator can be regulated according to the

controls on two-pipe systems provide greater control. With no air vent valves there is no hissing in the modern two-pipe system, in which each radiator can be equipped with its own individual thermostat.

The new boilers, cabinet enclosed, are designed to look like another piece of furniture in a well appointed basement recreation room. They are a far cry from the old fashioned utilitarian boilers of 1926. The modern creations are built for oil, gas

the flues are among the improvements. Simplified from units of several hundred parts to a comparatively few, and with corresponding reductions in weight, the oil burner unit of today shows tremendous development over its counterpart of two decades ago.

Similar innovations are found in gas burning boilers. Staggered fins throw the gases all around the combustion chamber, covering every square inch of the surface. Costs of



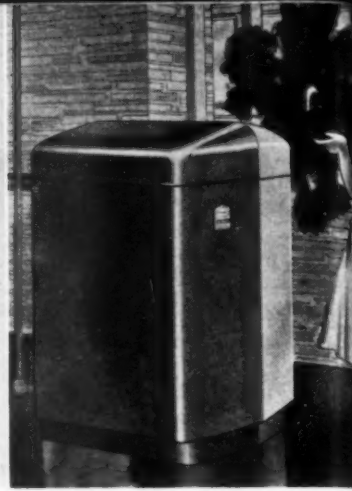
Console type oil burner. Photo: Norge Div., Borg - Warner Corp.



Modernistically styled 1946 enclosed oil burner. Photo: General Electric Corp.



Low cost smartly packaged conversion type furnace for oil, gas or coal. Photo: Jackson & Church Co.



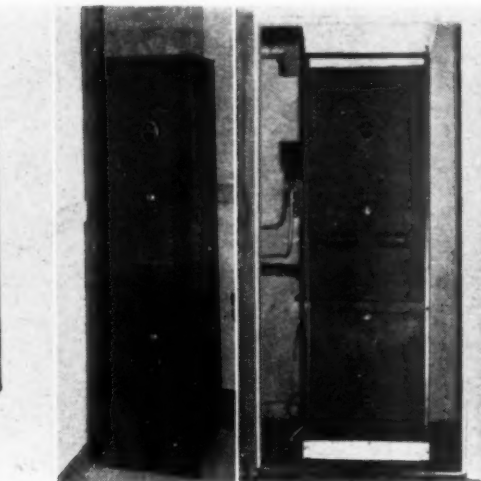
New oil boiler for four or five room low cost home. Photo: Timken Silent Automatic Div.



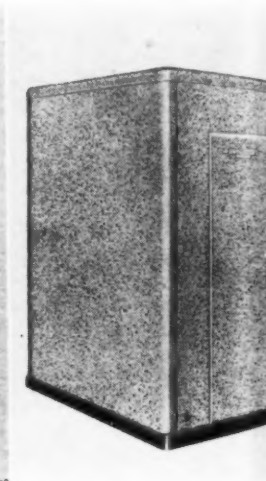
Modern heating, air conditioning unit. Photo: Gar Wood Industries, Inc.



Gas burning winter air conditioning unit for 1946 homes. Photo: L. J. Mueller Furnace Co.



Types of modern automatic small gas furnaces designed for today's G.I. homes. Photo: Bryant Heater Co.



Another cabinet type furnace styled to fit modernized basements. Photo: Perfection Stove Co.

these as well as other types of boilers have declined as much as one-third, and they occupy about one-fourth of the floor space the earlier models did.

The new boilers designed for coal burning likewise are characterized by modern styling, and are built to reduce greatly the amount of fly ash in the flues. Stokers, both the bin feed and hopper types, are lighter than their predecessors of twenty years ago, and are more long-lived. They eliminate most of the work and dust from the use of coal heat. Here,

also, scientific design makes maximum use of the gases of combustion.

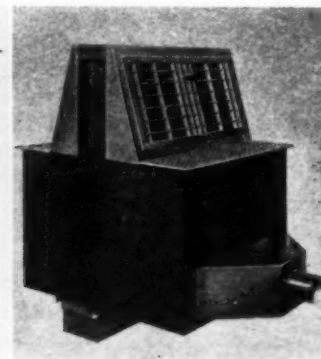
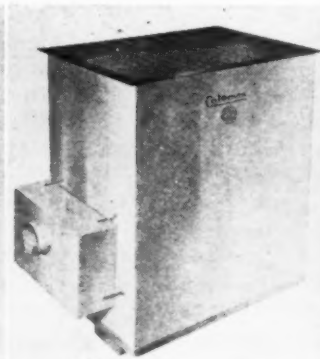
In warm air systems, present day use of an electrically driven fan produces controlled and faster circulation. Use of the fan also gets away from the octopus of large ducts which used much of the headroom in many of the basements of 1926. Today, smaller, flat ducts are possible. This results in installation economies, and greater use of the basement for recreational or workshop purposes.

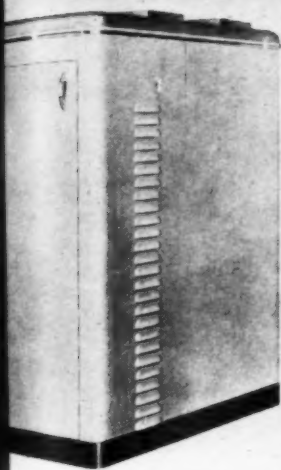
Air filters in the warm air system,

as well as humidifiers to provide the circulating warm air with proper moisture content in the winter, are now standard equipment. Winter air conditioning is practically standard in all warm air heating systems, and the degree of both winter and summer air conditioning that is obtainable is contingent on what the owner wishes to pay. Individual summer air conditioning units, feasible only in large commercial and industrial installations two decades ago, are now available at moderate cost.

Typical automatically controlled floor furnaces designed for one-story houses. Photos: The Coleman Co., Inc., and L. J. Mueller Furnace Co.

Characteristics of the best modern floor furnaces are attractively enameled grilles, high efficiency, quick automatic heat and easy installation. They are designed for oil or gas firing. Photos: Royal Heaters, Inc., The Viking Mfg. Corp., and H. C. Little Floor Furnace Co.





The new oil-fired furnaces reach new highs in combustion efficiency, and silent, smooth dependable operation. Costs and weights are lower. Photos: The Viking Mfg. Corp., and Airtemp Div., Chrysler Corp.

Typical radiant heating installation, a recent development in which piping is embedded in a concrete floor slab. In this way heat is distributed evenly over the floor surface. Photo: A. M. Byers Co.

In the field of fuels, improved coal processing, fuel briquettes, and important strides in the distillation of fuel oil and the manufacture of gas are important contributions to modern home heating. A recent product, liquefied petroleum gas, provides the farmer and rancher located beyond the mains with the opportunity to use gas for heating and other purposes. It comes in tanks used in tandem, so the empty tank can be replaced without interruption of service.

The advancement over twenty years in thermostatic heat control has been from the extreme in simplicity and the approximate in temperature control to the other extreme in exact, automatic time clock control.

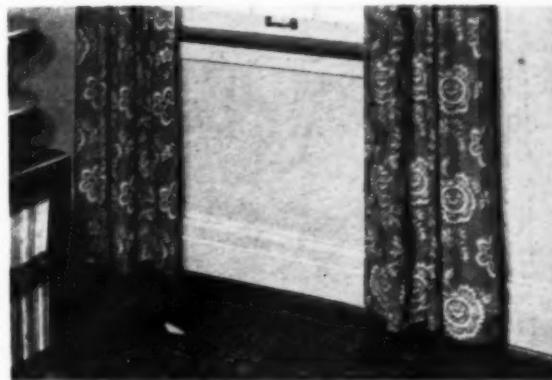
The newest control systems hold variation in room temperature to an absolute minimum because adjustment can be made so minutely that heat output is continuous. Scientific controls permit modulation of temperatures so that heat deliveries exactly balance heat loss. Stratification is eliminated and cold drafts are avoided.

One of the most startling developments has been in the field of floor furnaces. From little more than a box suspended below a grille, these have evolved into carefully engineered, scientifically controlled modern heat-

ing units in designs and capacities to meet every need.

The whole field of heat radiation has been practically revolutionized. From the comparatively massive iron radiator of the middle twenties have come newly styled radiators, convectors, and combination radiators and convectors. Many of them with cabinet exteriors, smartly styled grilles and decorative motif, are available for recessed or semi-recessed installation or free standing. A very recent development is baseboard panel radiation, replacing the conventional baseboard in a room. With this system, radiant heat is distributed over a large surface, with only a negligible amount being carried to the ceiling by air currents.

While radiant heating is as old as the Roman Empire, it is only in very recent years that its development was begun on a large scale in this country. It is being tried by forcing warm air through tile floors, but its most common use is by means of wrought iron pipes embedded in concrete floor slabs. While costs of early installations were high, the method has now been developed to a point where it is acceptable as far as price is concerned for small and medium priced houses. Beyond the experimental stage, radiant heating is now numbered as one of the definite advances of the industry.



Radiant baseboard panel radiation is a very recent development. Continuous radiant panels replace baseboards. Photo: The Crane Co.

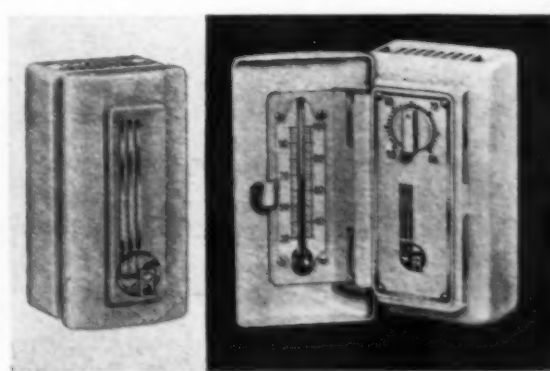
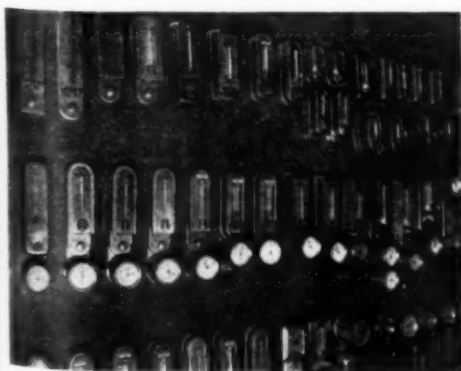


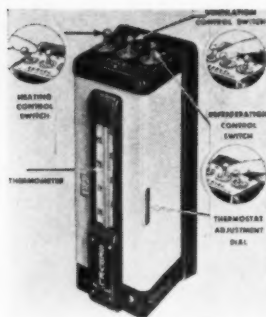
Recessed convector radiation has been improved in both efficiency and appearance. The one shown is quite typical. Photo: Madine Mfg. Co.

Showing development over 20 years of automatic thermostat heat controls to 1946 precision instruments. Photo: Minneapolis-Honeywell Regulator Co.

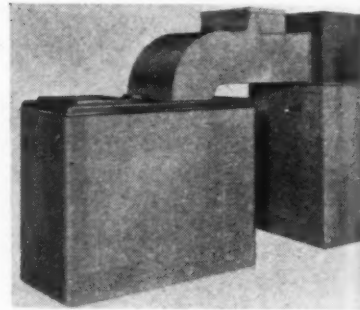
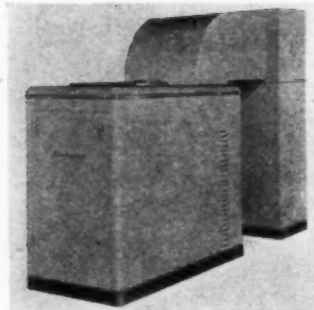
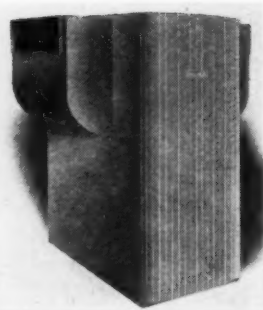
This type of thermostat in each room assures room temperature control. Photo: Minneapolis - Honeywell Regulator Co.

This modern room thermostat features a hinged cover which conceals and protects the thermometer and temperature adjustment knob. Photo: White-Rodgers.

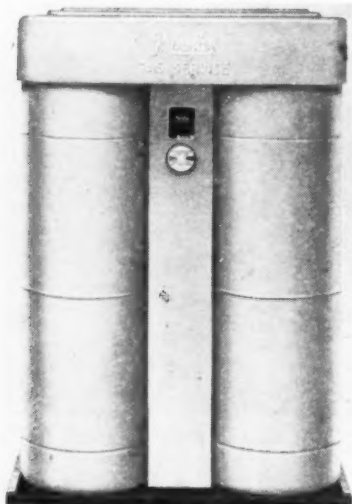




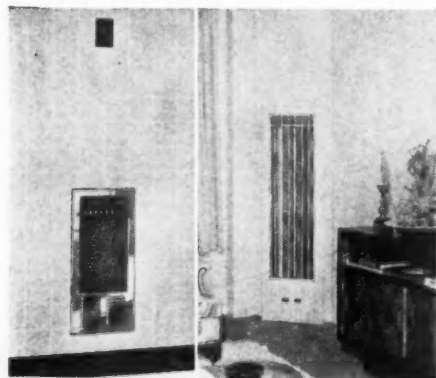
The Servel all-year gas air conditioning control unit, which operates the plant at right to heat, humidify, de-humidify, cool and circulate heat throughout the modern home in conformity with needs outside seasonal conditions require.



Two more modern heating, cooling, air conditioning and circulating units which manufacturers now produce for installation in modern homes. At left, Chrysler Airtemp; right, Viking.



Marked progress has been made in manufacture and distribution of liquefied gas. Photo: Pyrofax.



Nor has modern heating science neglected the fireplace. It was less than twenty years ago that the first functional change was made in open hearth fires. It came in the form of an engineered hollow steel form around which masonry was built to produce a heat-circulating, smokeless fireplace. Improvements have been made steadily until today the unit combines utility unheard of in fireplaces twenty years ago, and permits practically any kind of traditional surface treatment as well as many new and modern treatments. Introduction of these units since 1926 has made fireplace construction fool-proof.

Many new exhaust fans have been developed for providing a cooling breeze throughout houses, particularly in warm climates. They are large, slow-speed, finger-tip control units for attics and windows. Both types exhaust stale air from a house by drawing cool, fresh air into the building through open doors or windows. This natural method of cooling offers many advantages and economies to the builder and small home owner.

Individual electrical room heaters have been developed to provide such 1946 units as these. Left: Frank Adam; right: Panelray.

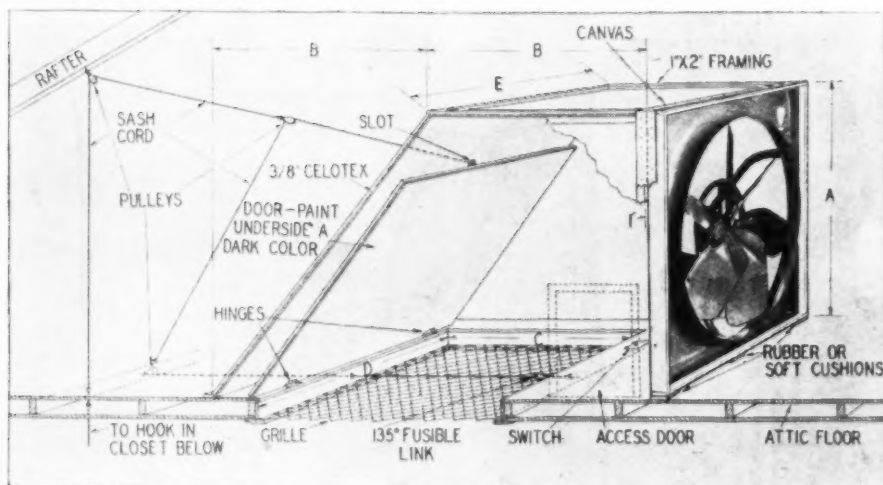
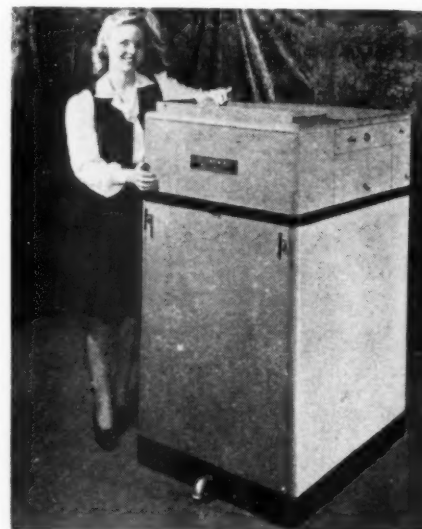
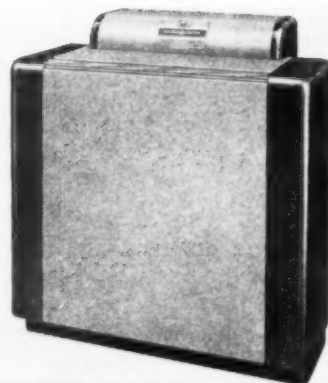


Illustration showing typical attic ventilating fan installation. Drawing: Shreveport Engineering Co.



Latest implement for healthful, clean living is the Westinghouse Precipitron which cleans and sterilizes the air in homes.



Because of technical refinements individual room air conditioners and coolers are no longer a novelty. This G-E unit is typical.

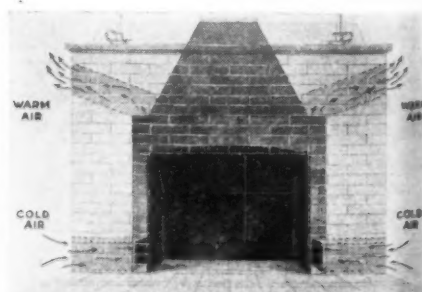


Diagram of a Heatilator fireplace unit, which illustrates the basic principles of the newest devices of this type now available.

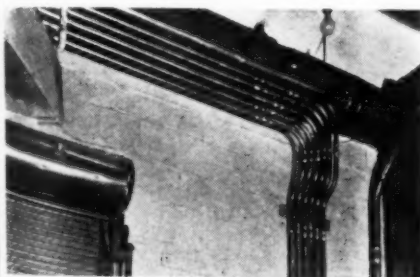
Fittings Keep Step With Modern Fixtures

In line with advanced improvements, manufacturers of fittings and pipes have made outstanding contributions to the industry

NOW that many of the so-called critical materials have been mustered out of the armed services, we may expect to find an ever increasing number of alloys being used in the production of plumbing pipes and fittings.

Copper and wrought iron, two of the oldest metals known to man, have been employed in innumerable ways to serve the building industry in the past, particularly in plumbing and heating installations.

One of the outstanding advances in copper pipe development is solder fittings. This is a radical departure from any method heretofore used in

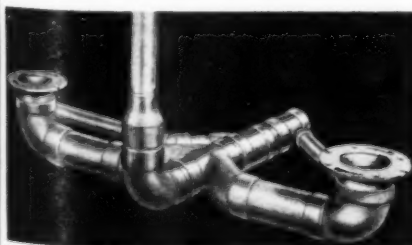


Typical installation of copper pipe and fittings with soldered connections. Photo: Mueller.

that connections are made by soldering rather than by threading.

Through the use of this type of fitting, the wall thickness of pipe has been reduced so that it need be no more than actually required to meet the conditions imposed upon it. Economies are thus introduced which place this material in a price range available to all.

The use of wrought iron in the building field has expanded greatly over the past years, particularly in connection with installation of radiant heating panels and air condition-



Improved drainage fittings. Photo: Mueller.



During a lull stocks of pre-cut pipe are prepared for use in this progressive shop.

ing systems where durability and resistance to corrosion are assured.

The fact that wrought iron has excellent welding characteristics makes it especially adaptable to these fields of activity where economy commensurate with long life is essential.

The new type drainage fitting shown above is a distinct improvement over the old method where so often it became necessary to cut away a large portion of the wood framing members for installation.



Plumbing trap. Photo: Bethlehem Industrial Corp.

The absence of hubs on fittings and pipe lines permits them to be concealed between studs and joists and yet leaves ample room for flooring, lath and plaster. Since no room is required for wrench hold or swing, the fitting may easily be connected in any space large enough to accommodate the fitting itself.

Just recently released to the trade is the latest in plumbing traps shown

PLUMBING

Piping • Materials • Installation

on this page. This trap offers many advantages over the old conventional type. For the present it will be manufactured only in the "P" type shown in the photograph. Later its features will be incorporated in a combination sink and tray model which should prove advantageous where dish-washing machines and garbage disposal units are installed. It is made of brass castings, precision machined with heavy chrome-plate finish.



Deep or shallow well pump. Photo: Weil.

Available to the suburban home builder today who has to drill a well for water supply is the double acting jet pump which supplies all the water requirements for the household.

This pump requires no more attention than any standard household appliance. The double action operates as follows: To the suction lift of the centrifugal impeller is added the push of the jet. This double action boosts the pump discharge pressure and produces exceptional capacity with a small motor.

Safety, a vital factor, has been achieved by complete enclosure of all moving parts and elimination of shaft coupling. Economy of operation is assured as the jet pump consumes less electricity than a 300 watt bulb.

A desirable feature is its adaptability to all types of wells, whether they are large or small bore wells.

BATHROOMS

Fixtures • Cabinets
Walls • Floors • Lighting

Modern Bathrooms Combine

Trend toward ratio of more bathroom facilities per room plus more ingenious design for quality and convenience are marked accomplishments of manufacturers

A CASUAL GLANCE at a few of the photographs on these pages illustrates graphically the practical and artistic improvements that have been made in the last two decades in planning bathrooms and designing fixtures.

Along with the trend toward a ratio of more baths per room in new homes have come many innovations in the combinations of baths, showers and powder rooms, as well as ingenious arrangements of plumbing fixtures to permit multiple use of the bathroom. While fixtures were being redesigned for more color, utility and beauty, manufacturers were also introducing new materials and better treatment of traditional materials. Bathroom fixtures today are being made of porcelain enamel on cast iron, vitreous china, vitreous glazed earthenware and sheet steel in a good choice of color combinations.

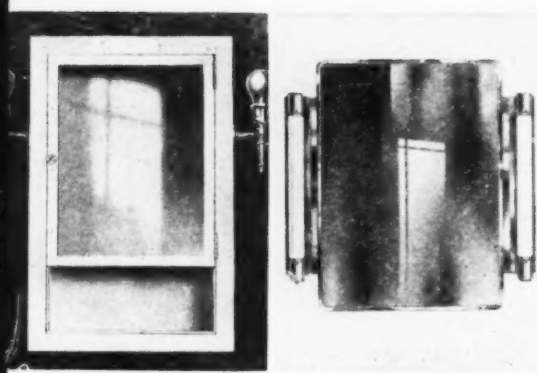
During the last twenty years, bathtubs have come to be designed generally not only as a fixture for bathing, but also as a receptor for a shower. Many of the tubs now have built-in seats and are equipped with a raised edge on the wall sides to prevent water seepage. Engineered bathtub hangers also help to avoid seepage and settling of the tub with building shrinkage. The home owner today gets a safer tub than was available for average homes twenty years ago because it is lower and has steeper sides and ends.

Manufacturers have developed low-cost, efficient shower fittings that can be installed in average houses so economically that today no bathroom is considered complete without a shower. It may be over the tub, in a separate compartment, or both. Shower compartments may be built in or may be chosen from a highly refined group of prefabricated, leak-proof stalls produced by several manufacturers in a good variety of materials and finishes. There are three types of water controls for showers—the thermostatically controlled mixing valve, a mixing valve which tempers the water, and the two-valve system where the bather tempers the water by turning hot and cold faucets.

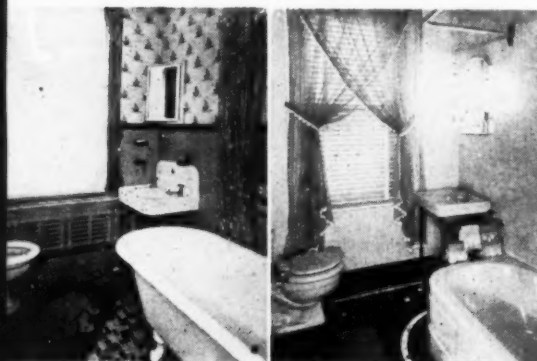
The development of mixing valve faucets with handles for hot and cold water but a single spout for tempering of water before use has been another great stride to give more utility and convenience.

The almost universal adoption of chromium finish on the metal portions of bathroom fixtures has been another of the marked improvements.

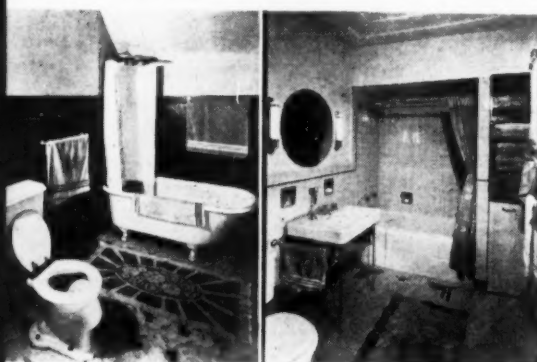
In recent years the shape of lavatories has tended toward the oblong, and gradual elimination of the old round type. This not only conserves space but has been proved more convenient. Basins themselves in the oblong lavatories are usually either oblong or D-shaped.



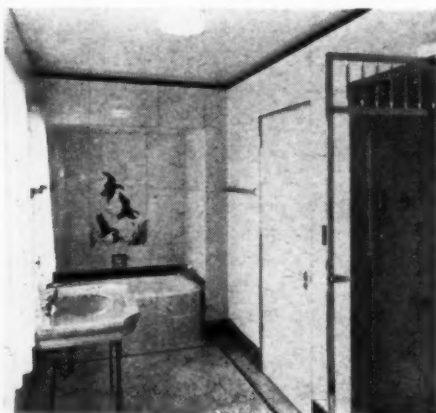
The modern cabinet at right is lower priced than 1946 model at left. Photo: Philip Carey.



Above and below are old-style bathrooms and the same rooms after modernization. Photos: Crane Co.



Below: Ceramic tile manufacturers provide materials for floor and wall jobs like this. Photo: Cambridge Tile Co.



A good variety of moisture-proof products for bathrooms is now being made. At left:



Structural Carrara glass with Herculite shower room door; at right: J-M Flexboard walls.

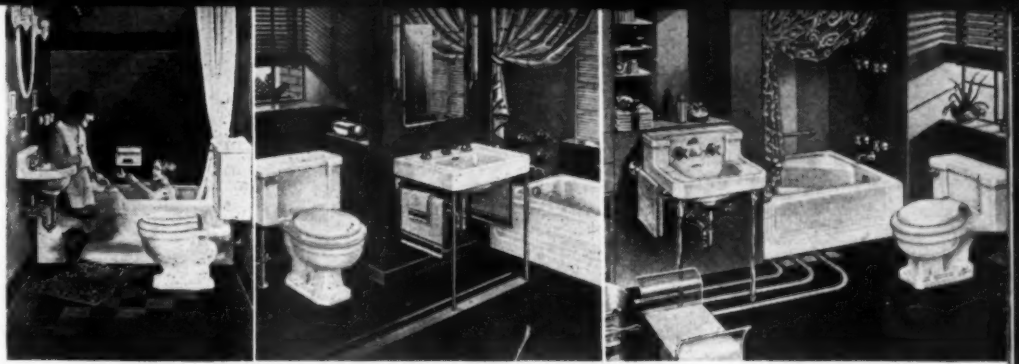
Beauty, Utility

The home builder today has a wide choice in lavatory styles and sizes—wall hung, chromium or glass legs with towel bars integral with the legs or hung separately, with or without shelves at the back, or wide slab surfaces. Position of the faucets and spouts varies infinitely to satisfy the whims of home owners.

Water closets have also run the gauntlet of modernization in design and improved service. Quieter and more efficient action, easier cleaning and more pleasing design are outstanding changes during the last two decades. Functionally there are now three types of closets—the siphon jet, reverse trap, and the washdown, with prices varying according to their efficiency. All these require flush tanks, but a fourth system of flushing, the Sloan low-pressure valve, requires no tank. At least one manufacturer has announced a lavatory and water closet combination unit with the flush tank for the water closet incorporated in the rear of the lavatory. An important recent innovation in exterior water closet design is the one-piece unit with low tank. This style and the close-coupled model may be placed away from the wall to facilitate cleaning and prevent wall condensation.

All the operating parts of plumbing fixtures such as faucets, valves, showerheads and drain controls are finely engineered parts today. Faucets have renewable seats which prolong their service indefinitely.

Concomitant with development of refined bathroom fixtures, building material manufacturers have come forth with a wide variety of bathroom wall and floor finishes in the last two decades that are not only impervious to moisture but are beautifully pleasing to the eye, in addition to being infinitely easier to clean.



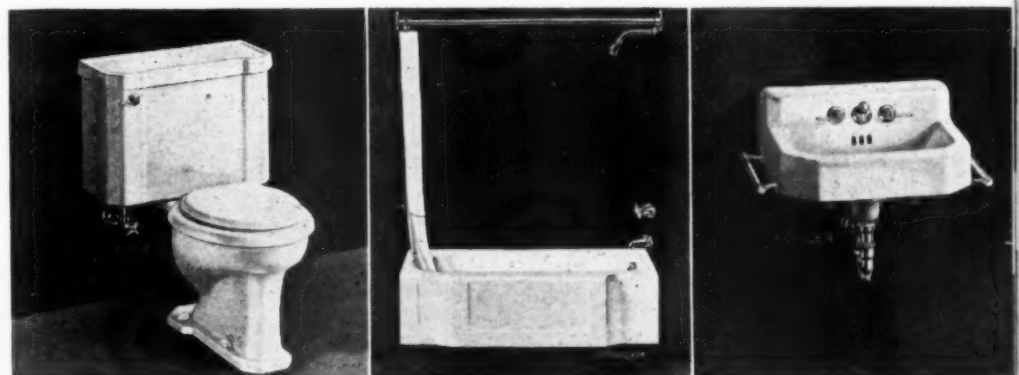
Another 1926 comparison with the possibilities of 1946. Photos: American Radiator.



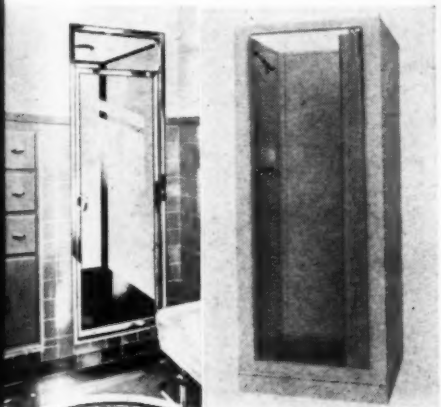
Glass partition separates tub, lavatory. Photo: Crane Co. Walls decorated, protected with L-O-F Vitrolite.



These two photographs illustrate arrangement of fixtures to permit multiple use of bathrooms. Photos: Briggs Mfg. Co.



Modern water closet is quiet, sanitary, efficient; tub is built for safety; lavatory has practical lines. Photos: Kohler. Below: Eljer fixtures. Water closet at left has flush tank at back of lavatory.



At left: A Weis built-in shower stall; at right, a Fiat prefabbed shower cabinet.



PROGRESS 1926-1946

KITCHENS • LAUNDRIES

Equipment • Planning

Equipment Transforms

Manufacturers of cabinets and appliances put housewife in pleasant, efficient surroundings which reduce work to minimum



Typical kitchen of early '20's contrasted with modern, scientifically planned kitchen of today. Photos: Crane Company.

DURING the last two decades kitchens have been rapidly transformed from drab, inefficiently arranged quarters to beautifully pleasant rooms in which housewives can enjoy working and also take pride in exhibiting to their friends. Twenty years ago the average kitchen was a makeshift affair—a workroom where cook stove, sink, ice box, and a “catch-all” pantry, closet or portable cabinet were placed at random without thought of appearance, convenience or efficiency.

The initiative, ingenuity and enterprise of kitchen equipment manufacturers—cabinet makers and appliance

producers—have elevated kitchen planning to a science. At the present time there are five definite generally recognized types of kitchens, scientifically planned to avoid unnecessary steps and handling of food in preparation. They are:

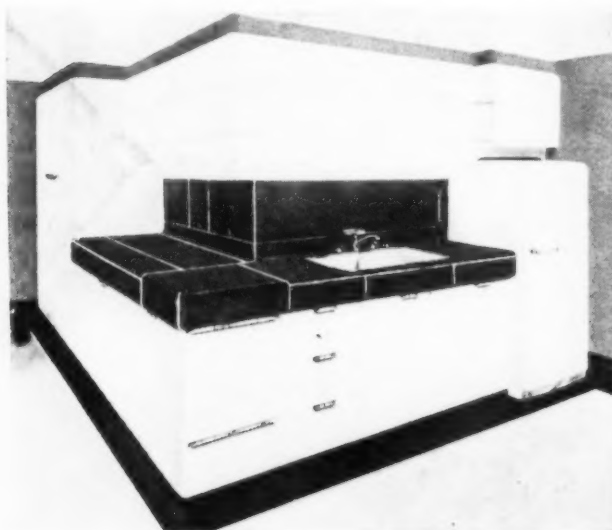
The U-type kitchen has work surfaces and equipment along three sides, all within easy reach. Doors at the open end of the “U” eliminate traffic through the work area.

The L-type kitchen provides continuous work surfaces and equipment along two walls, leaving other walls free for door and window openings.

The two-wall kitchen, used where entrance to the kitchen is from each end, has cabinets and appliances placed along two parallel walls, with the sink generally on one side and refrigerator and range on the other.

The one-wall kitchen is best suited to small homes and apartments. It has been found inadvisable to make the over-all length of this type more than 15 feet.

The individual center kitchen is planned where doors and windows do not permit cabinets to occupy a complete wall. Each appliance with its complementary cabinets is properly



The Ingersoll utility unit which combines fixtures, appliances, and fittings of kitchen, bathroom, laundry, heating, plumbing and electrical lines in a compact central steel core.



Typical example of modern kitchen cabinet design and arrangement. Note opaque glass panels closing faces of cabinets above work counter. Kelvinator refrigerator and range blend with cabinets. Photo: Morton Mfg. Company.

Kitchens

planned and located to provide easy and efficient flow of work. This type is often adapted to remodeling jobs to avoid costly structural changes.

The kitchen cabinet of the early '20's was a single piece of portable furniture, moved from house to house like any other piece. Since that time legs and casters have been removed and standard units complete with built-in sinks, work tops and soffits are available in an infinite variety of beautiful, efficient combinations. Great progress has been made in the size standardization of ranges, refrigerators, sinks, counters, dishwashers, garbage disposal units, etc., to fit standard unit cabinetry.

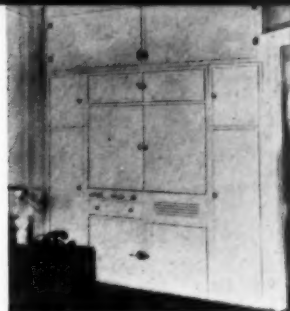
While cabinet makers, both wood and metal, were rapidly improving and streamlining their units, appliance manufacturers were doing the same thing along two different tracks. They not only beautified the exterior appearance of their products but developed automatically functioning ranges, refrigerators, dishwashers, garbage disposal units and other kitchen helps that are marvels of twentieth century engineering and science.

Gas and electric range manufacturers have made tremendous contributions to the improved appearance and reduction of kitchen drudgery during the last two decades. Continuous addition of automatic cooking features, plus work-reducing design of the units and increased efficiency at lower prices were major factors.

The automatic refrigerator is taken for granted in modern homes today. But it was only as recently as the early '20's that it was a curiosity and an expensive luxury. The electric refrigerator is an excellent example of what manufacturers have accomplished in the way of cost reduction through increased production efficiency and widespread distribution. In 1921 the average price of electric refrigerators sold was \$550. The refrigerator of today, which has twice the efficiency of the 1921 models, sells for about half the price.

Automatic electric or gas water heaters are also considered essentials in the modern home. Compact, efficient, economically operating units are being produced in numerous capacities, designs and price ranges.

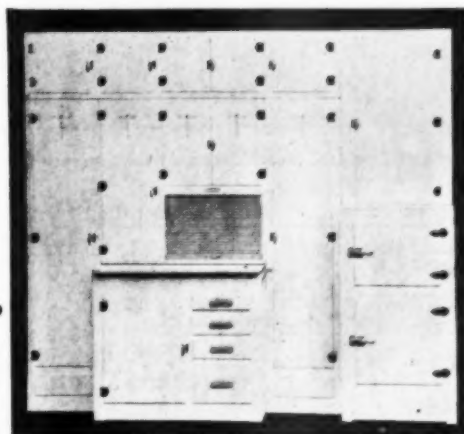
Doing the family wash, hanging out the clothes and ironing them were major chores of a housewife in 1926. Continuous improvement in washing machines during the last two decades has culminated in development of



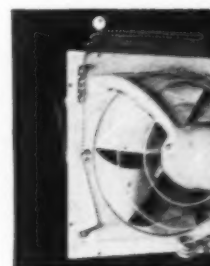
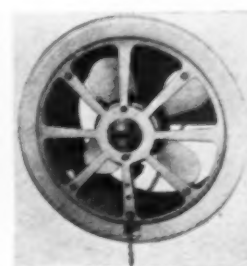
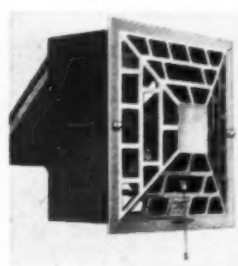
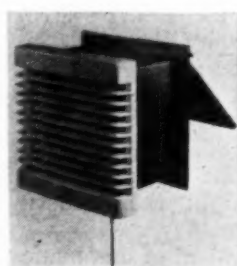
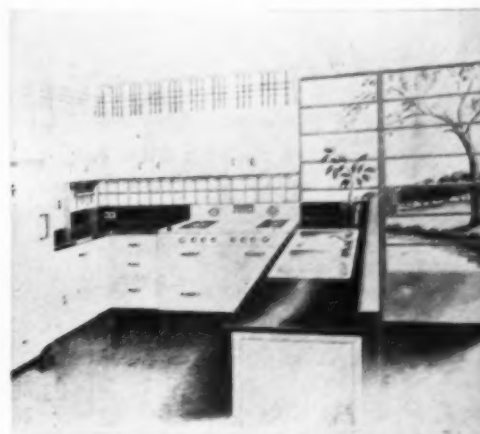
Parson's Pureaire one-wall kitchen combining range, oven, sink and refrigerator with generous working space.



Examples of modern cabinet sinks. Unit at left is a product of the Mullins Manufacturing Corp., and at right is a model produced by American Central Mfg. Corp.



Left above is the 1926 model kitchen cabinet produced by the pioneer Kitchen Maid Corp. compared with typical 1946 cabinets at right.



Four models of modern kitchen ventilating fans, a novelty 20 years ago. From left to right: American Blower, Majestic, Victor and Ilg.

automatic home laundering units designed to fit in the modern kitchen if desired. These miraculous machines have revolutionized home laundering because they automatically soak, wash, rinse and dry clothes. They are available in electric or gas models to suit the individual requirements of all-electric or all-gas homes.

Industry's research and inventive genius have also developed two types of ironers for modern housewives. These labor-saving machines are available in either the roll-type or flat plate type and are designed dimensionally to fit and blend in appearance with other equipment units of kitchens and laundries.



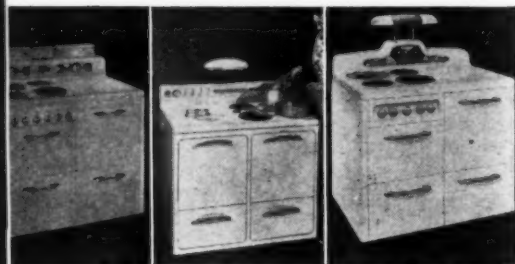
Another example of modern, streamlined cabinet sink construction. Photo: Kohler of Kohler.



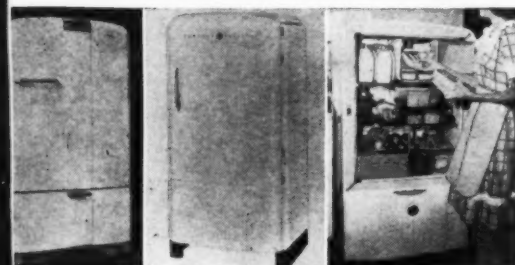
Modern stainless steel kitchen sink and cabinet work top. Photo: American Rolling Mill.



Modern, all-electric kitchen designed by the National Electrical Manufacturers Association.



Typical modern electric ranges. Left to right: Hotpoint, Westinghouse, Kelvinator.



This illustrates what electrical refrigerator makers produce today. Kelvinator, G-E, Westinghouse.

It was not until the middle '20's that mechanical dishwashers were developed to operate with chemical detergents instead of soap, an innovation which simplified problems of design and cost. At the beginning of World War II, the electrical dishwasher business was firmly established and is prepared now to make these units integral parts of a modern kitchen.

Mechanical disposal of kitchen waste directly into the sewage system is successfully accomplished now by units which may be installed in any average home. Not until the late '30's were these units produced on an appreciable scale. Today, refinements have made them one more practical time-saver to put in the modern mechanized kitchen.

With the development of automatic home laundries, dishwashers, and waste disposal units have come a number of kitchen sink combinations

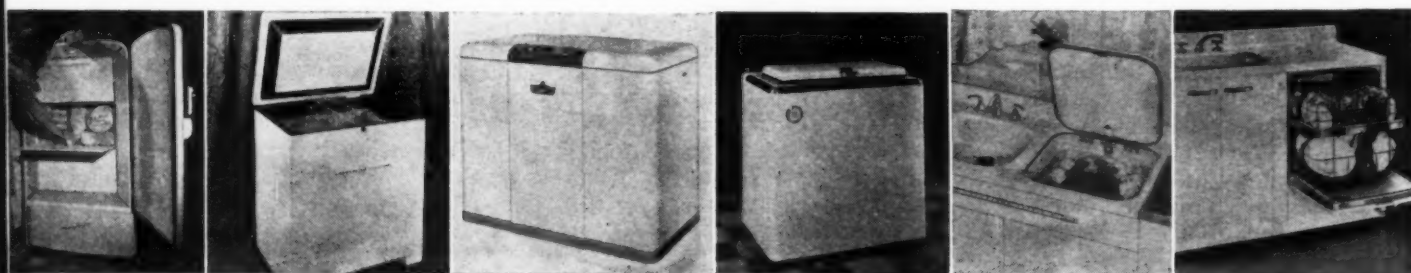
All-Electric Kitchens

incorporating one or more of these units with the cabinet sink. They may be obtained with dishwasher, dishwasher and waste disposal unit, with clothes and dishwasher or any combination of these.

While kitchen ventilating fans made their debut as far back as 1913, their development had not progressed beyond the "fan on board panel" stage by 1926. A comparison of 1926 with 1946 kitchen ventilators shows marvelous improvements in efficiency and a complete change from the bulky panel boards to compact and attractive built-in ventilators that are easily installed in walls or ceilings of any thickness. Particles of soot, odors, and grease which ordinarily spread throughout the home in a matter of seconds may now be exhausted at their source.

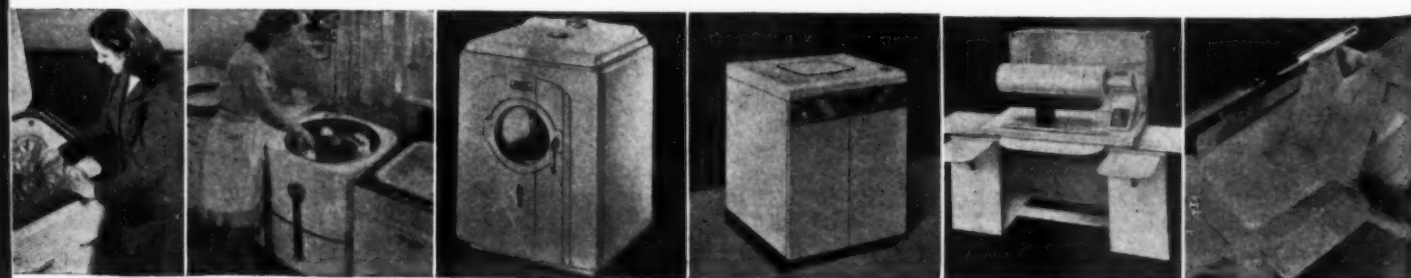
Still another development to help the modern housewife operate the home efficiently, economically and distinctively was the design and production of practical deep-freeze units for storage of foods at low temperatures. A good variety of these have been placed on the market to supplement the standard home refrigerator.

As a result of the tremendous developments in appliances for kitchens and laundries, a newly constructed house is no longer a shell. In addition to the automatic heating plant, the house is not considered complete without built-in cabinets and at least such major appliances as refrigerator, cooking range, automatic water heater



These four deep-freeze units typify the 1946 product of numerous manufacturers for the modern home. Westinghouse, G-E, Kelvinator, Frigidaire. Two

photographs at right above and left below are examples of modern, efficient dishwashing units. G-E, Hotpoint, Westinghouse, and Thor.



The latest in home laundry units such as the Bendix and Blackstone shown here automatically soak, wash, rinse and damp dry

clothes. The housewife now has choice of two types of electric ironers typified by the Bendix roll-type or G-E flat-plate at right.

and washer. Home financing practices in most states now permit the cost of such major appliances to be included in the mortgage to be amortized in regular monthly payments.

Along with the major kitchen and laundry appliances to make the modern housewife's duties easier and pleasanter, electrical appliance manufacturers have come forth in the last two decades with remarkable improvements in 1926 minor appliances plus a number of new items. Electric irons, dry or steam, with automatic temperature controls, are available. Portable kitchen mixers with numerous accessories which sharpen cutlery, polish silverware, grate, slice or shred food; automatic toasters, automatic roasters and broilers, automatic coffee makers, waffle irons, sandwich grills are a few more of the modern electrical appliances that help to make today's kitchen and laundry the most scientifically designed, highly mechanized rooms of the home.

Manufacturers of gas kitchen and laundry appliances have consistently improved and refined not only the appearance of their items, but the mechanism as well. Fully automatic, efficient and economical gas home refrigerators for the all-gas kitchen have shown marked changes in appearance during the last two decades. Today they are dimensionally and artistically designed to blend accurately with any of the new cabinet kitchen layouts.

Gas ranges of today are marvels of



Modern gas kitchen designed by the American Gas Assn. Gas refrigerator is at extreme right.

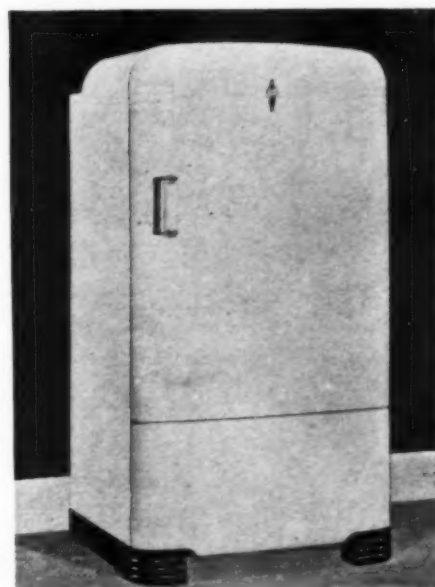
All-Gas Kitchens

automatic cooking efficiency and make the gas "cook stoves" of two decades ago appear archaic. Built-in automatic broilers, deep cookers, oven timing and temperature control, in addition to streamlined appearance, are major improvements.

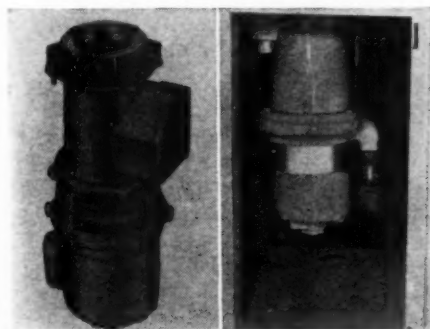
The automatic gas water heater models of 1946 are not only beautiful in appearance, but are remarkably efficient and economical in operation.

Most manufacturers of automatic heating equipment now have a line of domestic water heaters of various capacities. Some have glass-lined tanks, which assure a clean rust-free water supply.

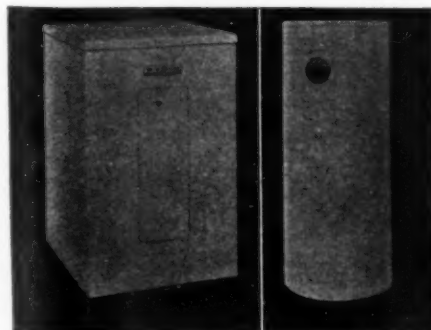
Where oil is burned as a heating fuel an oil burning domestic water heater is desirable. Many types are available; two are illustrated on this page.



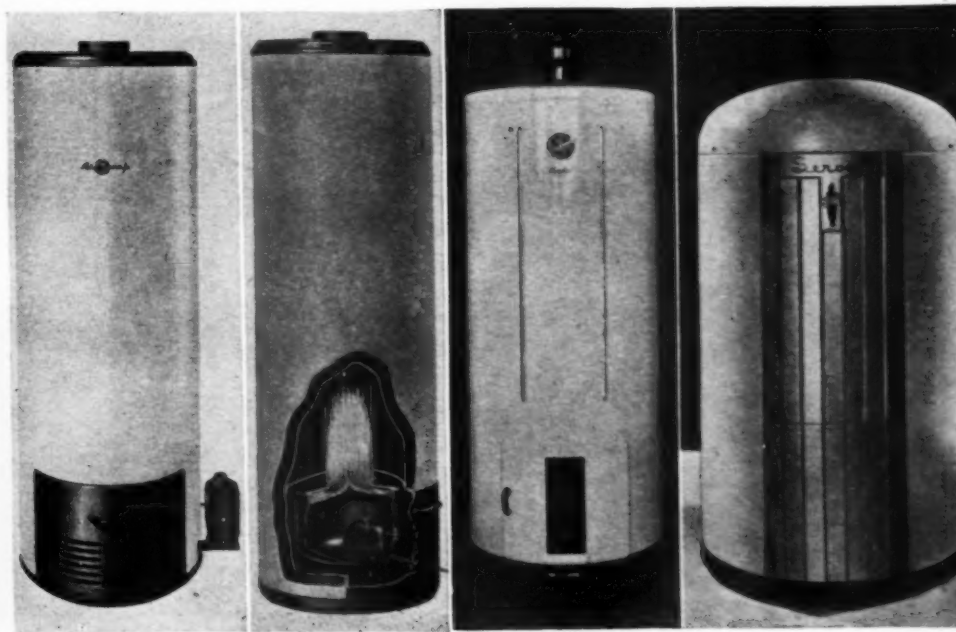
Attractive, economical, silent gas refrigerator manufactured by Servel, Incorporated.



Modern, efficient garbage disposal units. Left, General Electric; right, American Central Mfg. Co.



Two typical kinds of modern electric water heaters: both of these are General Electric.

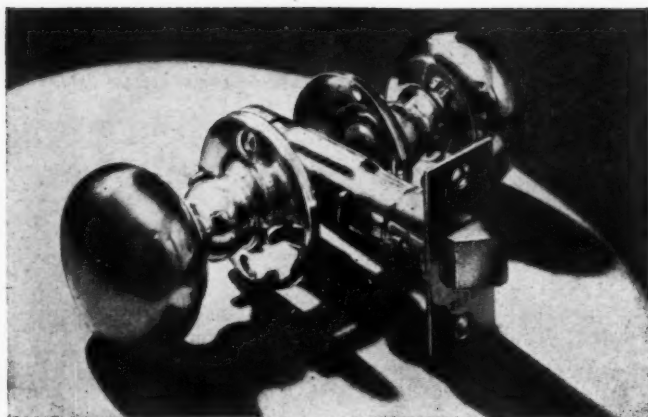


Two examples of modern, oil-fired water heaters, the one at left, Chrysler Airtemp, right, Viking.

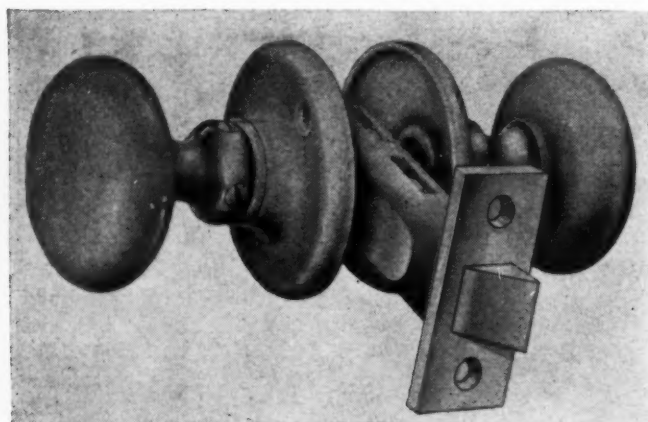
Gas-fired water heaters for the modern home, which are typical. Left: A. O. Smith; right: Servel.

HARDWARE

Hinges • Locks • Cabinet Sets
Door Chimes • Garage Sets and Doors



This 1946 tubular-type latch sells for about 30 per cent less than its pioneer prototype of 1926. Photo: National Brass.



Another of the new installation-time-saving tubular-type latches for modern home builders. Photo: P. & F. Corbin Company.



Note sharp contrast between older night latches and modern model on door at left. Photo: Yale & Towne Mfg. Co.

Engineered Products

BUILDERS' hardware, which carries or controls the movable parts of a house, has been improved in many respects during the last two decades. Manufacturers have adopted new materials and designs resulting in longer-lasting, better appearing and easier installed products. In addition to this the problem of hardware selection has been simplified by adoption of the "package" sales plan whereby complete door sets, window sets and other components in builders' hardware are wrapped in units at the factory. When materials arrive on the job, packages are labeled for front door, rear door, bathroom door, etc., thus saving labor time on the job in addition to eliminating errors in installation.

In contrast with a variety of finishes in vogue in 1926, some of them obsolete today, builders' hardware finishes now include polished brass, dull brass, dull bronze and chromium. The brass and bronze hardware is usually finished with a colorless lacquer to protect the finish against tarnish. Almost universal adoption of chromium finish hardware for bathrooms, kitchens and lavatories has brought a new note of beauty and quality to these rooms.

Besides wide use of brass and bronze for finish on builders' hardware, a general trend toward improved quality has resulted in adoption of brass and bronze working parts in many builders' hardware lines. The unseen working parts of locks have also passed through engineer and research laboratories to emerge in refined forms which give smoother, more trouble-free operation for the 1946 home owner at prices that in some instances are lower than those of 1926.

Probably the outstanding improvement in builders' hardware has been development of the tubular-type latch since 1926. In the middle '20's this type latch was just beginning its contributions to efficiency and labor-saving installation time. Until then there was only one type of lock, known as the mortise, which is still in wide use today, although in improved form. Introduction of the tubular-type latch inaugurated a new approach to the manufacture of locks and latches. Cast iron parts were eliminated, and to the extent possible, the parts were made from pressed steel and wrought brass or bronze. This not only results in a more compact



Modern cabinet hardware line in a wide variety of designs and finishes to blend with modern cabinets.

Give Greater Values

unit, but permits more accurate machining. Working parts are confined to a round tube to simplify installation. Only a round hole bored with brace and bit, plus a shallow mortise for the face plate, is required to prepare a door for installation of a tubular latch. Accurate checks reveal carpenters can install tubular latches in about one-third the time required to install a mortise-type.

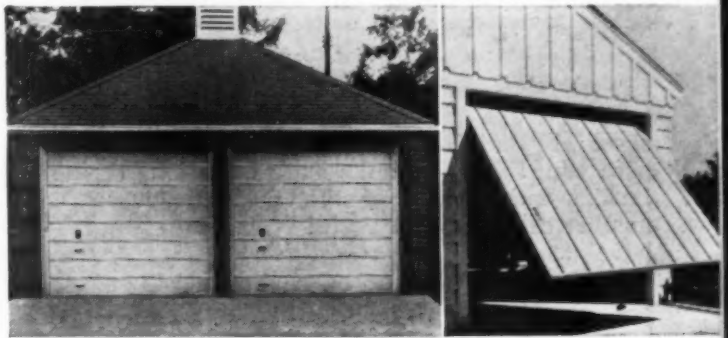
Redesign of front door hardware by manufacturers has kept pace with architectural refinements in home and front entrance detail. Twenty years ago only the most expensive homes were equipped with front door thumb latch handles and tubular locks, but today mass production methods of numerous finely styled front door sets permit any average home builder to enjoy that added note of luxury. Almost universal adoption of cylinder locks for front and rear doors, plus garage, operating with one key, has been made possible by manufacturers who design and mass produce locks for the home building market. Since many bit key locks formerly installed in homes could be operated with skeleton keys, the availability of good quality cylinder locks for exterior house entrances has made the 1946 home more secure against burglary and unauthorized entry, at a nominal cost.

Butt hinges have evolved from the plain, functional types of yesterday to the modern, streamlined fixture of today, with three to each door becoming common practice. Improvements in floor hinges have not been neglected and a better selection of push plates and door stops permits much improvement in appearance and operation where such units are used. Non-tarnishable, non-corroding sash locks and lifts along with improved casement hinges and fasteners have come from factories to make their contributions to better quality homes. Kitchen cabinet hardware has undergone revolutionary changes during the last two decades to offer the 1946 builder compact, scientifically and artistically designed pieces to fit any color or architectural theme.

Self-adjusting interior-locking storm sash fittings and improved hangers have replaced the old exterior turn-buttons which could be removed easily for possible unauthorized entry, or outright theft of the sash. Numerous new combination door locks have been de-



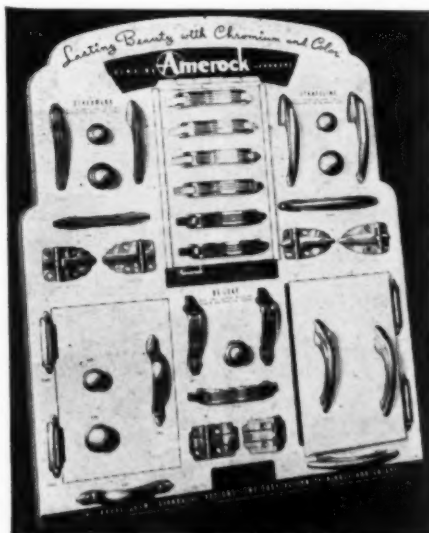
Today's modern upward-acting doors create a sharp contrast with these garage doors of 1926 vintage. Photo: Strand Bldg. Products Co.



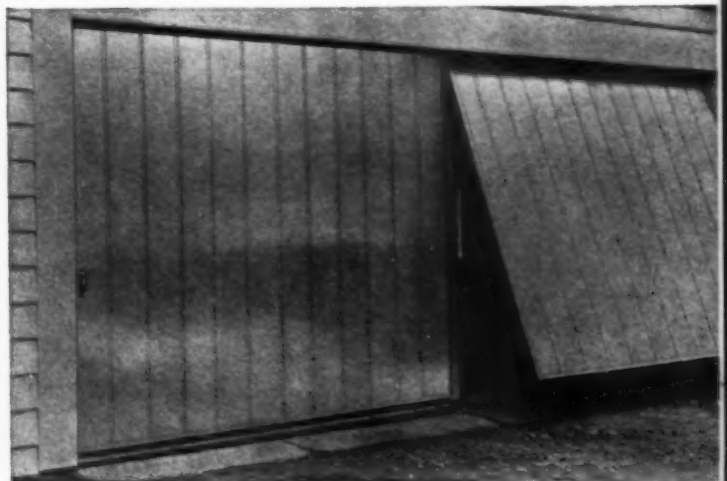
Above and on next page are typical examples of modern upward-acting garage doors. Left, the Crawford Company's door; right, Strand-Steel door.



Above: Doors by the Rowe Manufacturing Company. Below: Units produced by the Berry Door Corp.



Another sample board of modern cabinet hardware developed for economical installation in modern homes.





National Manufacturing Company's garage door.

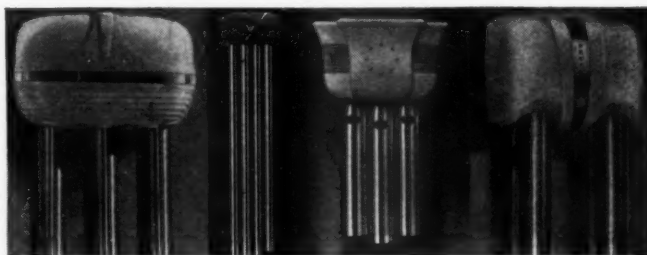


Modern unit produced by the pioneer Overhead Door Co.

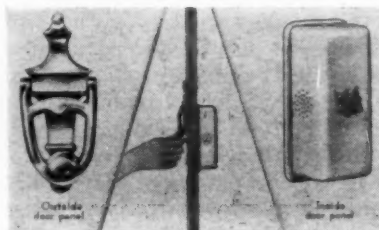
signed by builders' hardware manufacturers to keep pace with these new units and to facilitate their satisfactory operation. Checks for combination doors in a number of styles with varied functional characteristics have also been developed within the last 20 years to sell within the budget of the average home builder.

To add more refinement and distinctiveness in homes today, manufacturers have developed a wide variety of electrical and mechanical door chimes within the last two decades. These beautiful fixtures, enclosing dependable working parts, available at economical prices, add another note of value and increased livability to the 1946 home.

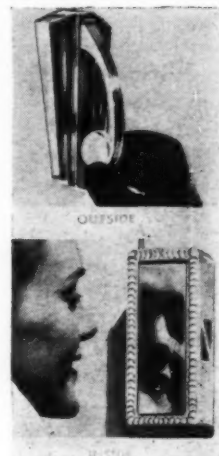
Tremendous increase in the popularity of automobiles and consequent growth in volume of garage construction has brought with it a host of new garage door hardware and complete, factory-built garage doors. During the last decade the upward-acting type door has attained outstanding popularity and today it is available at remarkably low prices in a wide variety of materials, styles and mechanics of operation. Many of these doors are fully assembled at the factory and delivered to the site ready for installation in minimum time. To supplement the new developments in garage doors, there is an automatic garage door opening and closing device which activates the door and also turns on or extinguishes lights by simple operation of a switch in the automobile or in the home.



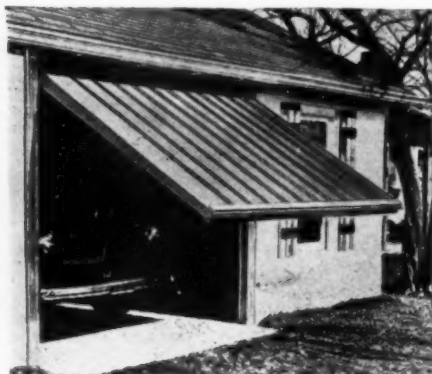
Four examples of modern door chimes. Extreme left and right: Nu-Tone; center two are Rittenhouse.



Above: An AuthOtone mechanical door chime operated by conventional knocker.



Right: Mechanical operating door chime manufactured by Edwards.



The Wilson Foundry & Machine Company's new door.



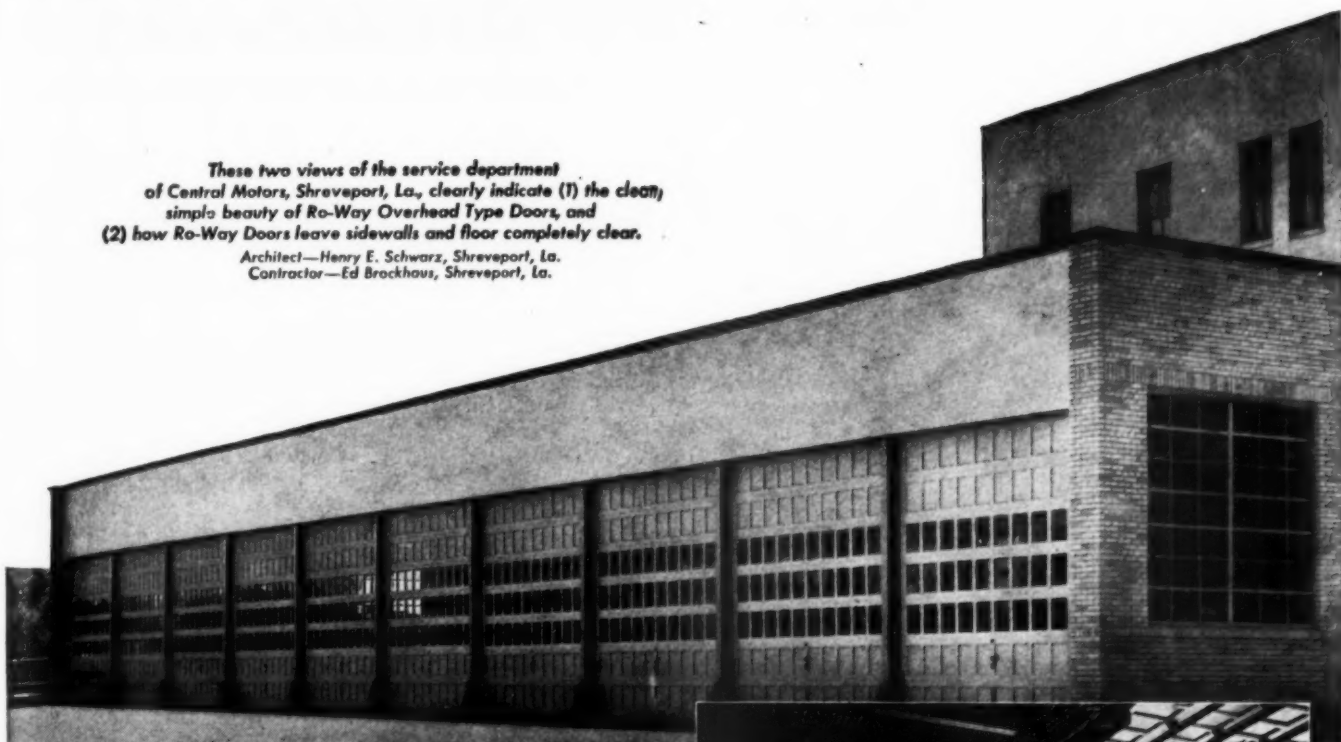
Such firms as Frantz supply working parts for upward-acting doors.



The Craw-Fir-Dor marketed by fir plywood manufacturers.

These two views of the service department of Central Motors, Shreveport, La., clearly indicate (1) the clean, simple beauty of Ro-Way Overhead Type Doors, and (2) how Ro-Way Doors leave sidewalls and floor completely clear.

Architect—Henry E. Schwarz, Shreveport, La.
Contractor—Ed Brockhaus, Shreveport, La.



An OPEN and SHUT CASE for **Ro-Way** OVERHEAD TYPE DOORS

So Much Extra Value at No Extra Cost!

Forget, for a moment, the smart appearance of Ro-Way Overhead Type Doors. Ignore (if you can) their simple modern design. Consider only these five extra-value features—exclusive with Ro-Way at no extra cost:

- 1. FRICTION-REDUCING TRACK**—Makes rollers ride away from the track sidewall . . . provides extra clearance.
- 2. "DOUBLE-THICK-TREAD" TRACK ROLLERS**—Each rolling smoothly on seven ball bearings.
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4. "CROW'S FOOT" OUTER BEARING SUPPORT—Holds sheave wheel in permanent alignment . . . no twist or sag to cause friction or binding.

5. RUSTPROOF HARDWARE—All hardware rustproofed by Parkerizing and painting after fabrication.

And there you have it—the case for Ro-Way. The reasons why Ro-Way Overhead Type Doors are in a class by themselves . . . and first choice of so many architects, builders and owners.

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Invisible
SASH BALANCE

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**Dependable
Performance**

The Grand Rapids Invisible has many features of superiority, as has been conclusively proved in thousands of war time and peace time installations. Among these are ease of installation, actual invisibility, and dependable, efficient operation in all climates and under varying conditions. The same balance for upper and lower sash make them interchangeable and 10 sizes meet 95% of all residential requirements. Complete illustrated instructions are on every carton.

SEND FOR SASH BALANCE CATALOG

which contains complete information on sash balance sizes, directions for installing, etc. All fully illustrated.



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No. 103 face plate, cone bearing type and Nos. 175, 109, 110 sawtooth drive type sash pulleys cover 95% of all sash pulley requirements.



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Catalogs and HOW-TO-DO-IT INFORMATION

264—STONE SAWS—The time and money they save their users is the subject of a 4-page folder being distributed by the Stone Machinery Co., Inc., Manlius, N.Y. On-the-job scenes and standard models make up the pictorial content. This is a folder that should be of particular interest to those working and dealing in marble, plastics, glass, slate and stone, and asbestos products.

265—TOOLS FOR THE TRADE—Anyone interested in tools used by the electrician, carpenter, and plumber in construction work will find Catalog No. 33-E, published by the Greenlee Tool Co., Rockford, Ill., a handy buying guide. The company's complete line of hydraulic and hand benders, hydraulic pipe pushers, cable pullers, knockout punches and cutters, spiral screw drivers, automatic push drills, and a complete selection of boring tools are described and illustrated.

266—METAL LATH AND PLASTERING ACCESSORIES—A catalog complete with illustrations and descriptive details on the types of metal lath and metal lath accessories being produced by the Penn Metal Co., Inc., 40 Central St., Boston 9, Mass., is now available. Besides specifications, it contains instructions as to where and how the various types of metal laths and their accessories can be used to the greatest advantage.

267—HARDWARE CATALOG—The 450-page modern industrial catalog just released by Yale & Towne Mfg. Co., Chrysler Bldg., New York City, is radically different from any in the hardware industry. In a series of colorful two-page spreads, each of which serves as a "visual unit" displaying hardware of a type, quality, and price range attractive to a specific group of customers, it most effectively presents the thousands of different products manufactured by Yale & Towne. Thus all information relating to a specific product will be found in a two-page unit instead of scattered throughout many different pages. Pictures are used generously and technical language is avoided. Color is used functionally either as background or to organize the elements of the layout. The patented magic back action binder allows the sheets to be flat when the catalog is opened, and also allows for new pages to be added.

268—STEEL KITCHEN CABINETS—Roberts & Mander Corp., Hatboro, Pa., now has available a full-color catalog illustrating and describing its entire line of steel kitchen cabinets, sinks, and ranges. A model kitchen, complete in every detail, is featured in the center spread, while the plus-features of the line and specifications are shown inside the back cover. This is a helpful guide to anyone interested in kitchen planning, old or new.

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Readers Service Department,
American Builder,
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(October, 1946)

Please send me additional information on the following product items, or the catalogs, listed in this department:

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*Please note that occupation must be stated if full service is to be given.

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"There's One of the BIG Reasons We Bought This House!"

Chrysler Airtemp automatic home heating products will give prestige and extra value to the homes you build for the market.

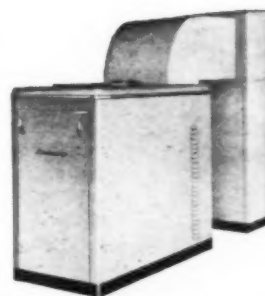
Reflected in this modern heating equipment is years of experience in home heating—plus the work carried on in the outstanding research and engineering laboratories maintained by Chrysler Airtemp.

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for engineering and quantity production skill—further assurance of high quality and dependability at low cost.

Why not give your new homes this prestige and extra value? It costs no more.

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Another great Chrysler Airtemp product for your new homes is this year-around air conditioner. It heats in Winter and cools in Summer!

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Because only ThermoFlo scientifically baffles all incoming cold air directly to hottest part of fire box . . . thereby producing maximum heat per pound of fuel consumed. Only ThermoFlo has THERMABAR supports to keep wood off back wall assuring steady draft.



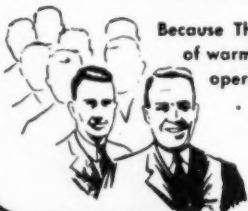
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Because ThermoFlo circulates a steady flow of warm smoke-free air . . . saves furnace operation in spring and fall weather . . . has proved superior to any unit of its type by thousands of satisfied users.

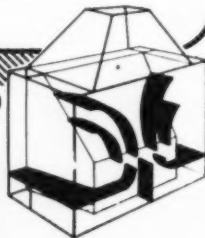
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THE *Scientific* FIREPLACE

DIVISION OF EASTERN CONNECTICUT WELDING CORP.

New London, Connecticut



Contractors and Builders

a small trickle of water and
the final payment is shot

1. You have a water problem in the basement of that new home.
2. Don't know what to do and everyone is soon
3. We blame it on the Specs., then the Architect he's mad.
4. So we have a little meeting to see who'll pay the cost, and in dashes "OLD WATERPLUG" and everyone is glad.



THIS IS A WET BASEMENT PROBLEM TO THE BUILDER AND HOMEOWNER

A. **WATERPLUG**, a quick-set hydraulic compound, seals streams of active water and seepage from entering through wall. Set begins in from 3 to 5 minutes after mixing water is added.



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Write for circulars descriptive, in photographic detail, of how to waterproof a basement, how to seal the surface of an old brick building which leaks, how to protect the exterior surfaces of manufactured block, brick, concrete or any type masonry with **THOROSEAL**.

Request your Lumber or Builders' Supply Dealer in your home city to order for you.

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Read for yourself the amazing story of CELLULITE COTTON INSULATION. Simple and easy to install . . . never packs down . . . always fluffy . . . repels vermin . . . thoroughly flameproofed.

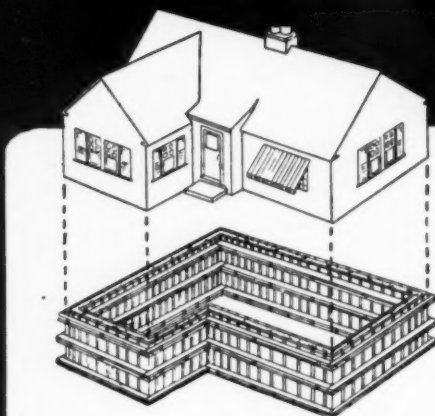
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Costs Less
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Even a youngster
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You can cut costs and put a real honest-to-goodness poured concrete cellar foundation under the houses you build with Atlas SPEED Forms. Easy to erect and Strip. Inexpensive to rent or buy . . . Lasting—built of Steel. . . . Can be used over and over again. What's more, if you are building 25 houses or more, you can build the foundations for less than with cinder block.

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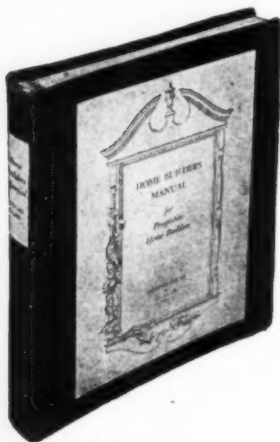


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A selection of 65 New England Colonials and other standard 4 to 6-room types designed by small homes architects.

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All homes built by Houston Ready-Cut House Company *surpass* the U. S. Department of Commerce Commercial Standard CS125-45, a voluntary standard prepared by the National Bureau of Standards for measuring the quality of prefabricated homes. It covers workmanship, materials, protection from damage, erection, strength, loads, connections, light and ventilation, foundations, chimneys, flues and vents, insulation, roofing, and other points. Houston Ready-Cut House Company houses *surpass* these rigid standards.

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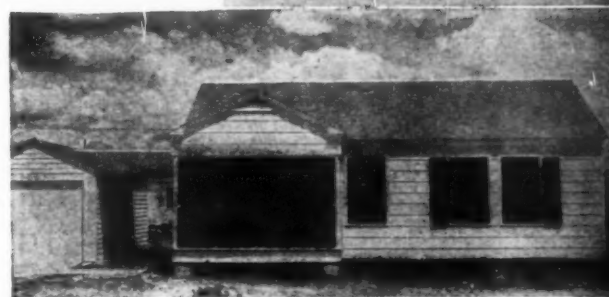
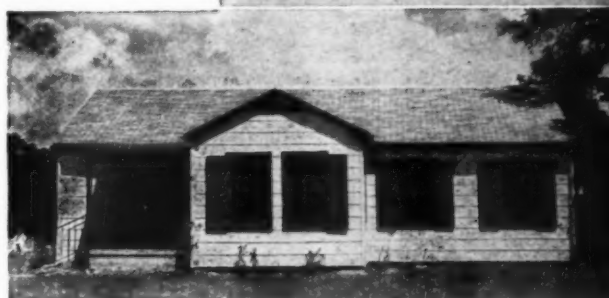
The four houses illustrated show the wide variation in architectural styles offered by Houston Ready-Cut House Company. And these are only a few of the house plans we have ready for mass production.

DESIGNED FOR LIVING

Each house fabricated by Houston Ready-Cut House Company has been designed to achieve maximum comfort, livability and usable space. Noise from outside has been reduced to a minimum, reverberation has been eliminated. In each of these houses, smart styling has been combined with a livable floor plan that will make any owner proud to call it "home."

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Homes such as these and the others in the Houston Ready-Cut line pass on to the buyer the many economies of mass production. Our company is a charter member of the Prefabricated Home Manufacturers' Institute. We are committed to selling these prefabricated homes through established outlets, with initial distribution on a regional basis, following the national plan of preference for war veterans.



HOUSTON *Ready-Cut* **HOUSE CO.**
Prefabricators Since 1917

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*Corner Window in Apartment Building,
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CORNER WINDOWS

The corner window is the ideal solution of the problem of obtaining both adequate daylight and ventilation and sufficient usable wall space in small rooms.

HOPE'S Steel Casements make the ideal corner window. They afford maximum daylight area for the opening. They permit the best control of natural ventilation. It is also important, both in small homes and the type of apartment building most popular today, that they are easy and safe to clean from *within* the room.

And, though low in price, HOPE'S Residence Casements are famous for their trustworthy weather-tightness and durability.

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Shipped knocked down so that you assemble. Just measure shower stall opening, make two simple cuts for desired width, assemble and install. Only tools required, mitre box, saw, drill and hammer.

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... it eliminates storing—

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RUSCO ALL METAL *Self Storing*

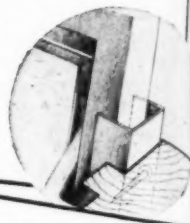
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The Rusco Patented Adjustable Closure Strip adjusts automatically to contraction, expansion and settlement, weatherproofs entire window opening, assures permanent, weather-tight fit.



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Simple adjustment of inside sash to desired level keeps rain and snow out . . . drafts are eliminated . . . plastic screen filters out dust, dirt and soot. Simply raise lower storm sash to self-storing position in summer, lower it into place in winter. Plastic screen stays in position the year round.



For complete data see Sweet's File for Builders, or write direct for descriptive booklet and name of nearest distributor.

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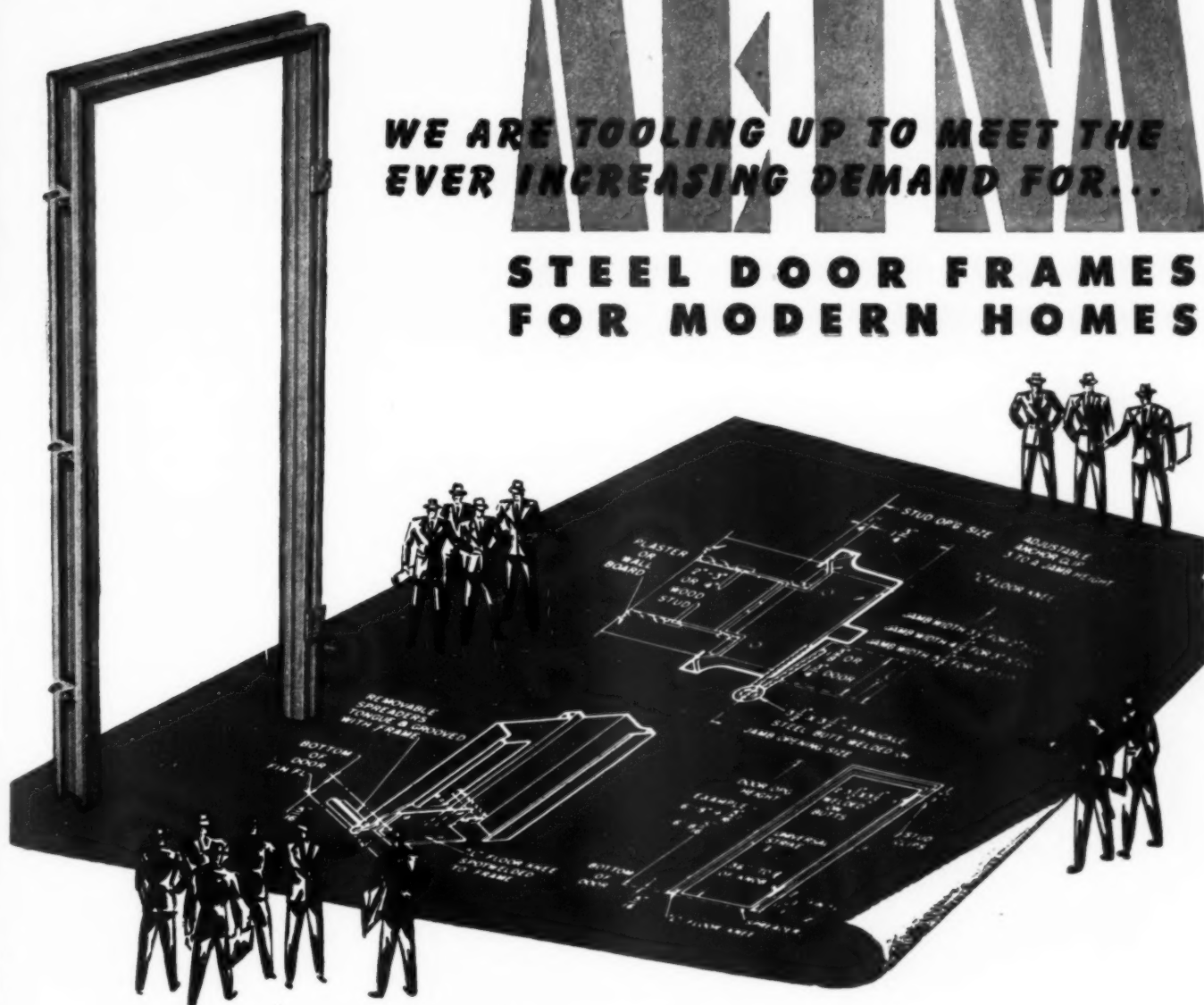
Also manufacturers of
Rusco all-metal Venetian
Awnings, Rusco Colorless
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*"Always one step ahead
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GOOD NEWS FOR 1947!

WE ARE TOOLING UP TO MEET THE
EVER INCREASING DEMAND FOR...

STEEL DOOR FRAMES FOR MODERN HOMES



THESE ADVANTAGES ACCOUNT FOR THE GREAT DEMAND

- **STRENGTH**—Welded to form a complete integral unit of jamb, head, and two sides trim; resulting in great strength.
- **RIGIDITY**—Being one complete integral unit, they will not warp or crack, and mitres will not open. Aetna Frames will not absorb moisture and swell, thus the size of the frame will not change.
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- **PERMANENCY**—Will not chip or damage, eliminating costs and inconvenience of repairs.
- **FINISH**—Prime coated at the factory, saving one coat of paint.
- **HARDWARE**—Hinges are welded to frames at the factory, saving the cost of a pair of hinges and application. They are spaced to fit virtually all prefabricated doors. Bronze strike plate is furnished to fit most standardized bit key and tubular locks and latches.
- **LOW COST**—Cost less than wood jambs and trim installed.

Aetna Steel Door Frames, like many modern improvements in the construction field, will serve as a stimulant toward building activity. Aetna Frames are easy to erect requiring less handling at the building site, offer you mass production economy and simplify your supply problems.

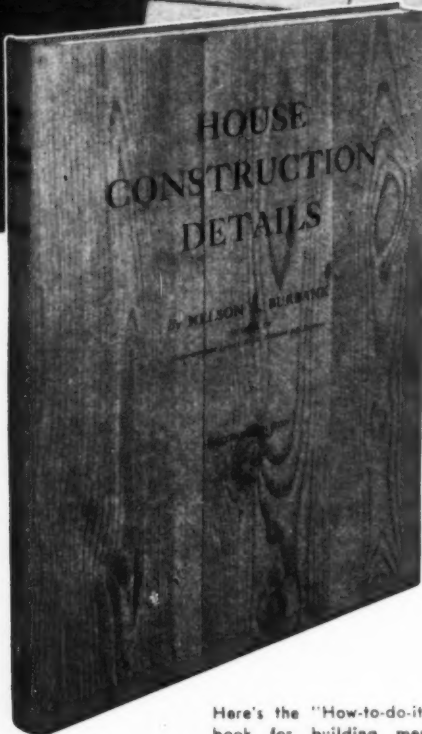
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It's easy to find what you want in *House Construction Details*, because all drawings and details are grouped in construction sequence, beginning at the foundation and carrying through step-by-step to painting and finishing. Look over the table of contents below and see how well the book has been arranged.

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Wall Sheathing	Sound Proofing
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Roof Construction	Garden Furniture
Ray Construction	Shoprafter's Corner
Roofing	Camps
Cornices and Porches	Cabins
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*Reliability*STARTS, *with...***BRADLEY**
PRE-FINISHED

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HARDWOOD FLOORING

IN OAK • BEECH • PECAN

RELIABILITY . . . hidden ingredient which makes Bradley Pre-finished (Straight-line) Hardwood Flooring a better product.

Where does it first enter? Not with the flooring factory or sawmill. Farther back than the forest. It begins with the standards which the Bradley Lumber Company set for itself at the time of its inception . . . standards that have guided all activities since.

Thus each step . . . in forest operations, sawmill, dry kilns, flooring factory, even loading into cars that take it to many and far-flung

destinations . . . is taken with the prime intent of building reliability into Bradley Pre-finished (Straight-line) Hardwood Flooring.

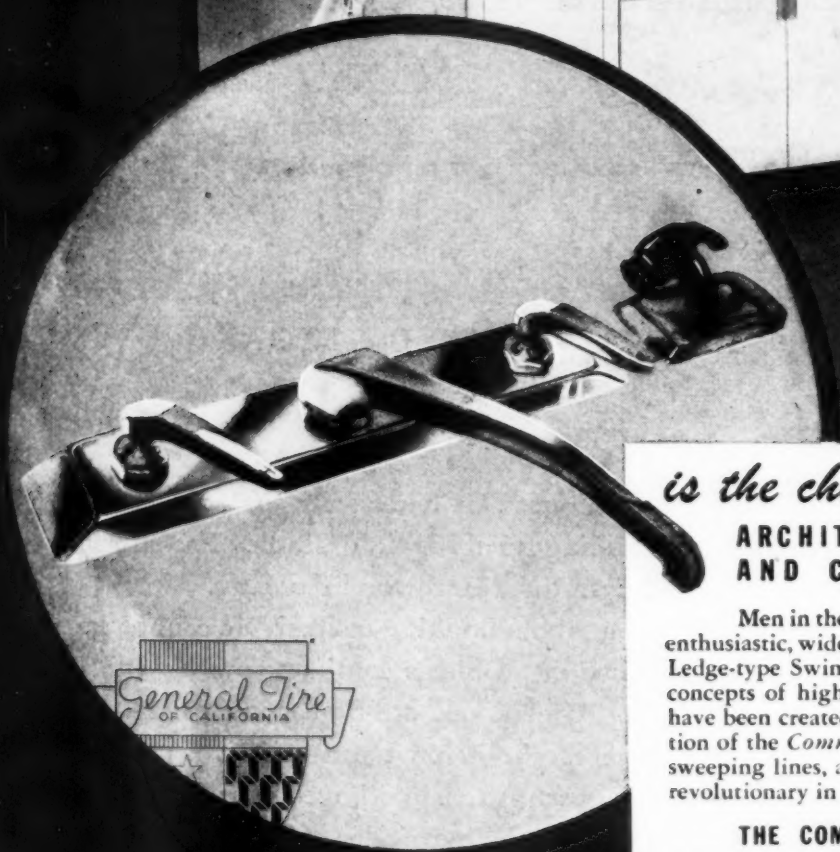
What about booking orders? We cannot say. Production problems continue with no end in sight. To even our old-time, long established customers, the best we can offer is a pro rata trickle, with no visible hope of an increase at least during the remainder of 1946. Meantime, we'll be glad to mail literature describing the 9-Point superiority of Bradley Pre-finished Flooring.

BRADLEY LUMBER COMPANY *of Arkansas*

WARREN, ARKANSAS

The COMMODORE..

of course



The COMMODORE... choice of
Fritz B. Burns' \$75,000.00
Post-War House in Los Angeles

is the choice of

**ARCHITECTS, BUILDERS, PLUMBERS
AND CABINET MANUFACTURERS**

Men in the Building Industries have watched with interest the enthusiastic, widespread acceptance of GENERAL'S jewelry-polished Ledge-type Swing Spout Kitchen Faucet. In the *Commodore*, new concepts of high-strength, light weight, and maximum durability have been created through advanced brass engineering. The perfection of the *Commodore's* long-life heavy chrome finish, its graceful sweeping lines, and the strength of its light weight fabrication are revolutionary in plumbing fixtures.

THE COMMODORE PRESENTS THESE FEATURES:

- ★ Long, Nine-inch High Arch Spout — for extended radius of operation over twin sinks.
- ★ All Brass Parts — heavy triple chrome plated, jewel-polished.
- ★ Auto-spray Attachment for rinsing dishes.
- ★ Faucet-shanks eight inches on centers — quickly attached to metal, wood or tile ledge.

GENERAL TIRE & RUBBER COMPANY
OF CALIFORNIA

Plumbing Division Sales Office: 608 South Fair Oaks Avenue, Pasadena 2, California, U. S. A.



... AND Fully Automatic COAL HEAT!

This little house on a hill is the solution to many designers' problems. It offers the economy of a one story home with the advantages of a two floor plan! It can be built on a steep and rocky lot with a minimum of expensive excavation, since the partial basement fits into the slope of the lot. Living and dining spaces are at the top of the house, overlooking neighboring homes and affording a grand view. If the house is placed close to the street, a maximum of secluded garden space may be provided on the lower side, close to the living room and bedroom windows.

ECONOMY is the key factor in building the 11 million new homes needed in the next few years. The heating facilities you select will play a major part in the economy and salability of houses you design or build. The heart of this livable home is an economical, fully automatic coalburning heating plant, with easy access provided to the basement from all parts of the house. Coal heating . . . whether fully automatic as above, or hand-fired with automatic controls . . . is the most satisfactory and economical in the long run.

A coal heating plant is the only installation that can be converted to all other types of heating—when you design or build, play safe, provide coal storage space and chimneys adequate for any fuel. Design for coal . . . "Fuel Satisfaction". It is economical, safe, clean, quiet, odorless and abundant.

Norfolk and Western RAILWAY

CARRIER OF FUEL SATISFACTION

● **INITIAL COST ECONOMY.** A hand-fired coal furnace is the least expensive of all central heating plants.

● **AUTOMATIC HEATING.** The cost of a stoker-fired coal furnace is no greater than the cost of a good installation using any other fuel, over a period of time . . . economy in cost of fuel is the saving.

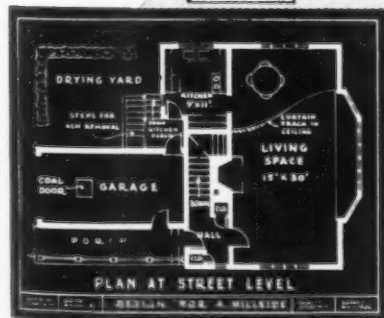
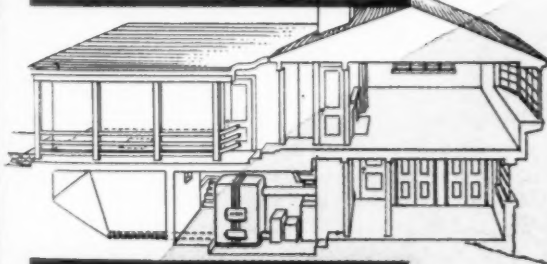
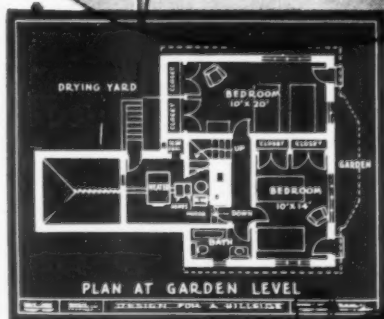
● **FULLY AUTOMATIC HEAT.** The ultimate in cleanliness, safety, comfort, convenience and economy, is a bin-fed, ash removal, coal-burning stoker — the cost is little more than a regular stoker.

● **CLEAN, SMOKELESS FUEL.** Coal today is sized, cleaned, and dustproofed at the mine.


● **PLENTIFUL FUEL SUPPLY.** We have a three thousand year coal reserve. Other fuels may be exhausted while your building is still relatively new.

● **CONVERSION POSSIBILITIES.** A conversion burner can be installed economically in a coal furnace. The reverse is not possible. Be safe . . . provide for coal.

Unique design of this home places bedrooms on the lower floor with combination living and dining room directly above — all away from the street for quietness, privacy and maximum view. This is an ideal design for homes along rivers and lakes, or for those in any city.



*There's a Fertile Field
FOR
INSL-COTTON
SALES*



RIGHT IN YOUR OWN TERRITORY!

• • **CERTIFIED** Insl-Cotton insulation has tremendous sales potentialities. With less than 10% of the nation's homes insulated... with thousand of new homes yet to be built, the market for Insl-Cotton has barely been scratched. Growing in popularity every day, accepted by architects, contractors and builders—*certified* by the U. S. Government, Insl-Cotton is a natural to lead in the great swing toward home insulation. There's a fertile field for this popular insulation—right in your own territory. It's an insulation the contractor, builder, and homeowner will naturally want, because of these special advantages:

- ★ Light weight
- ★ Flame-proof and fire-retarding
- ★ Simple to install
- ★ Vermin and moisture resistant
- ★ Harmless to handle. Does not irritate skin, lungs or eyes
- ★ Economical
- ★ Effective (Its "K" value of 0.24 is the lowest of any available type of insulation)



INSL-COTTON DIVISION

Taylor Bedding Mfg. Co.

The Originators of Flame Proof,
Fire-Retarding Cotton Insulation
TAYLOR, TEXAS

- INSL-COTTON DIVISION
- Taylor Bedding Mfg. Co., Taylor, Texas
- Gentlemen:
- Please send specifications and full information on INSL-COTTON.
- NAME _____
- ADDRESS _____
- CITY AND STATE _____
- Check Here: ☐ Distributor ☐ Architect ☐ Contractor



Appliance Styling
PLEASES
AMERICAN HOUSEWIVES!

**KITCHEN MAID CABINETRY
AND ALL MODERN APPLIANCES
CAN BE USED IN HARMONY!**

Kitchen Maid has taken the lead again, with a line of standard unit cabinetry which has been re-styled to harmonize with *all* modern kitchen appliances.

New simplicity, new beauty of line and mass, new "Flow-line" design, make Kitchen Maid the number one cabinetry for use in new homes and remodeled homes. Kitchen Maid "Appliance Styling" has met with the enthusiastic approval of architects, builders, and housewives alike.

In addition this cabinetry retains all the well-known advantages of *Composite Construction*—the warmth, the strength, the dependability, and the flexibility of hardwood and wood compositions—the quiet, easy action of steel drawers with hardwood slides and guides—the beauty and durability of factory-applied appliance-white finish.

Write for additional information; The Kitchen Maid Corporation, Andrews, Indiana.

KITCHEN MAID
CABINETRY

Appliance Styling • Composite Construction

IN HOMES AND APARTMENTS



Kelvinator means greater user satisfaction!

Thousands of enthusiastic users in homes and apartments have acclaimed the dependability of Kelvinator refrigerators. The experience gained in over 30 years of building fine refrigeration has made Kelvinator the recognized standard for trouble-free performance.

Powered for dependability by the famous Polarsphere unit—sealed-in-steel and permanently lubricated—Kelvinator refrigerators bring you quiet, economical refrigeration at its best.

For property managers this means longer-lasting units, lowered maintenance costs, fewer replacements . . . and for users, greater all-round satisfaction.

For complete details, see your local Kelvinator dealer. His name and phone number are in the classified section of your local phone book. Or write to Kelvinator, Detroit 32, Michigan.

PROPERTY MANAGERS SAY:

... In letters from Kelvinator's files:

NEW YORK—"With reference to the performance of the 214 Kelvinator refrigerators in our development, we have over the period of the past four years and four months spent only \$39.50 for replacement parts. Two years ago a complete refrigerator unit was purchased as a spare, but to date has never been installed in one of our refrigerators."

WASHINGTON—"There are 100 Kelvinators installed in this project and have given very satisfactory service since 1941. To date none of them have had to be replaced or have had any great amount of maintenance work."

Kelvinator



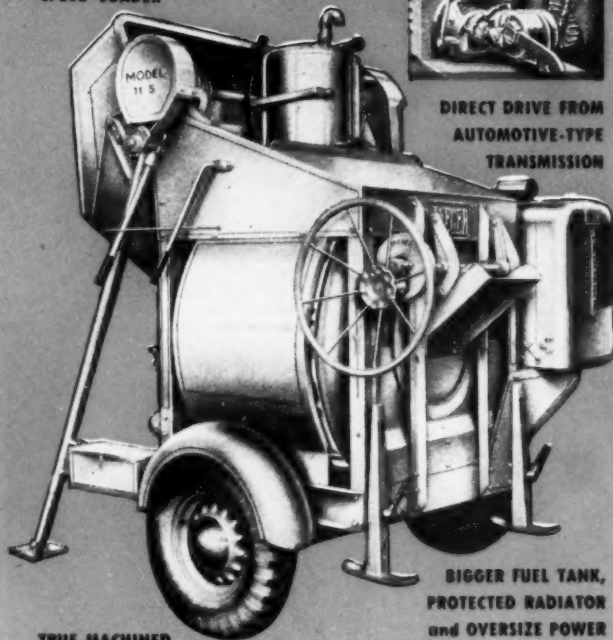
DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT



REFRIGERATORS • ELECTRIC RANGES • HOME FREEZERS • WATER HEATERS

JAEGER MIXERS for big, low-cost yardage

AUTOMATIC
SKIP SHAKER
SPEED LOADER



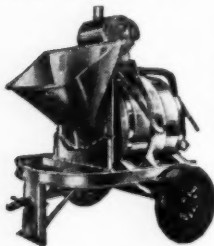
DIRECT DRIVE FROM
AUTOMOTIVE-TYPE
TRANSMISSION

BIGGER FUEL TANK,
PROTECTED RADIATOR
and OVERSIZE POWER

TRUE MACHINED
STEEL DRUM TRACKS

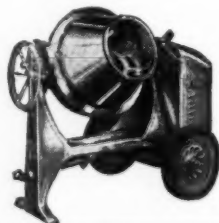
JAEGER SPEEDLINE

Ask your Jaeger distributor to show you these and many other advanced features developed in 3 1/2S, 6S, 11S and 16S size trailers, by the world's largest manufacturer of concrete, plaster, mortar mixers.



3 1/2S "AUTO-LOADER" with Measuring Batch Hopper that automatically SHAKES the load in, quick-as-a-flash. Good for 15 to 20 EXTRA batches a day—today's fastest small mixer on the road and on the job.

3 1/2S "BIG BOY" TILT-TRAILER: Huskiest half-bag tilter Jaeger has ever built, with the famous Dual-Mix "V"-bottom drum that DOUBLES the mixing action and speeds the discharge.



THE JAEGER MACHINE CO.

Main Office and Factory — Columbus, Ohio

REGIONAL OFFICES.

8 E. 40th St. 226 N. LaSalle St. 235-38 Martin Bldg.
New York 17, N. Y. Chicago 1, Ill. Birmingham 1, Ala.
AIR COMPRESSORS, MIXERS, PUMPS, HOISTS, PAVING
MACHINERY, TRUCK MIXERS—DISTRIBUTORS IN 120 CITIES

NEW Aeropel Home Ventilator



Take our tip and investigate this sparkling new home ventilator that is winning profits for dealers and customers for builders. There's a market in every home—old or new. Installation is fast and easy.

Just ask your jobber or call the nearest American Blower Branch Office.



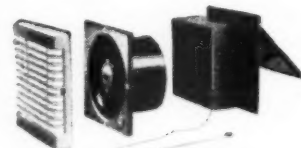
Aeropel whisks out odors, stale air, greasy fumes, smoke

KEEPS KITCHENS FRESH AS A DAISY!

Also good for bedrooms, bathrooms, nurseries, recreation and utility rooms. Suitable for many offices, too!

Priced right for competitive selling

Compare its performance and appearance with other fans.



View shows component parts of Aeropel

AMERICAN BLOWER

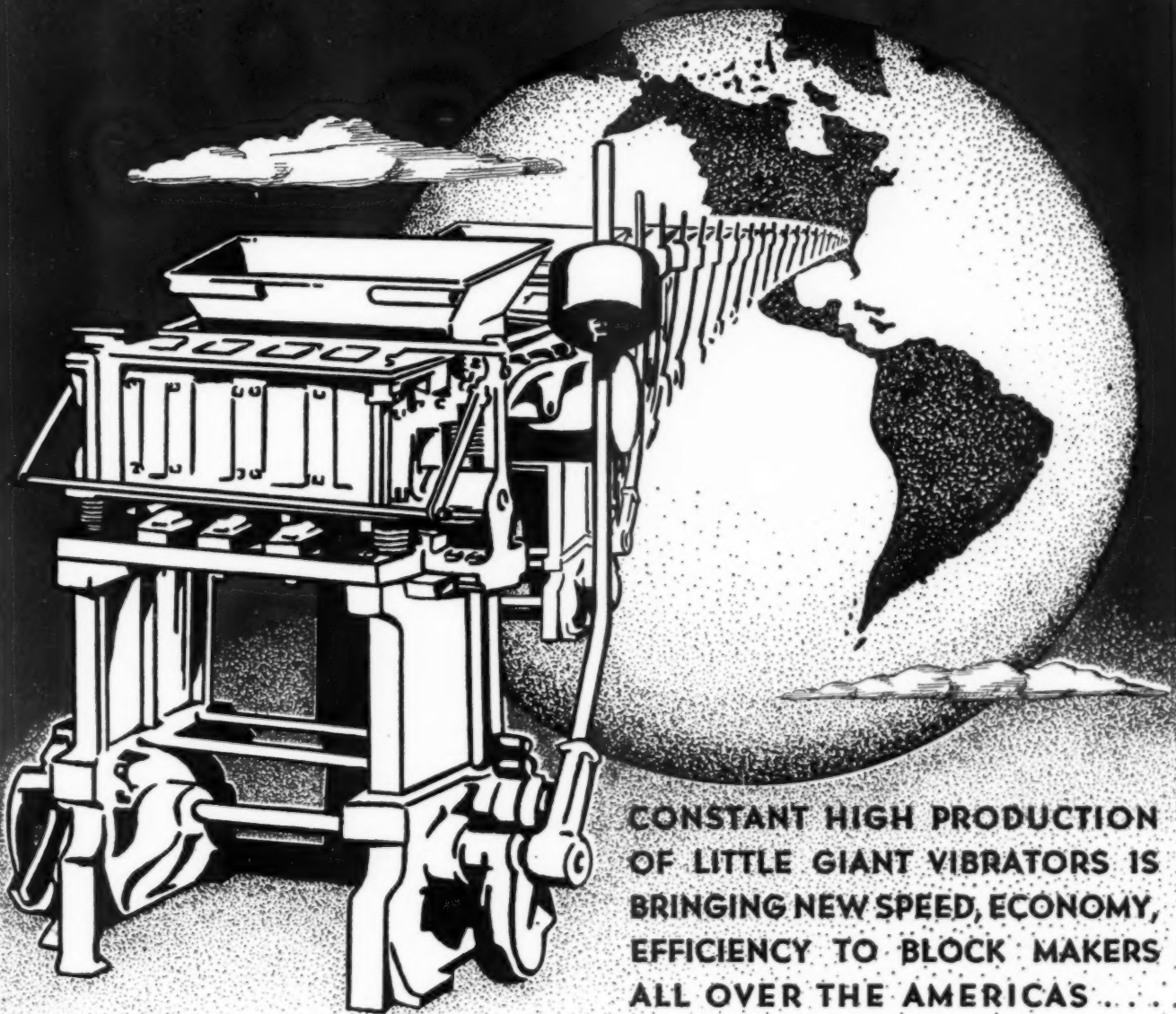
AMERICAN BLOWER CORPORATION
DETROIT 32, MICHIGAN



Division of AMERICAN RADIATOR & Standard Sanitary corporation

In Nine Months

**1000 APPLEY LITTLE GIANTS
HAVE GONE TO WORK!**



**CONSTANT HIGH PRODUCTION
OF LITTLE GIANT VIBRATORS IS
BRINGING NEW SPEED, ECONOMY,
EFFICIENCY TO BLOCK MAKERS
ALL OVER THE AMERICAS . . .**

Little Giant Vibrators are building blocks that build good will everywhere.

Precision machining is a big part of the story.

J. W. Appley & Son Little Giants have a minimum of wearing parts. Under wartime pressure and stress, blocks continued to roll from little Giants when other machines gave up the ghost and passed into disuse.

Because Little Giants are precision built, J. W. Appley can assure you that when parts for replacement are needed, they are immediately available.

Operating a block plant with Little Giant guarantees you maximum-constant-production.

Dealerships are available. Write, or wire at once for full details.

J. W. APPLEY & SON

P. O. BOX 849 STATION A

ST. PETERSBURG - FLORIDA

CALCIUM CHLORIDE

stretches normal concreting
schedules far into COLD WEATHER



WHENEVER the thermometer falls to 50° F. or below, concrete slows up—takes longer to attain strength

required for removal of forms—delays placing succeeding courses—delays completion of the job.

Such delays are easily avoided and summer schedules maintained in cold weather by using calcium chloride in all concreting. While most engineers and contractors feel obliged to use calcium chloride in winter concrete, many fail to realize that it does the same work of speeding job schedules the year around, and supplies "built-in" curing as a bonus.

Get the facts from our technical booklet "Early Strength Concrete," yours on request.

CALCIUM CHLORIDE ASSOCIATION

NEW ADDRESS:

LaSalle Bldg., 1028 Connecticut Ave., Washington, D. C.

Better Concrete - Faster

with **CALCIUM CHLORIDE**

THREE HINGES
TO A DOOR IS
SOUND ECONOMY
AND GOOD
BUILDING PRACTICE

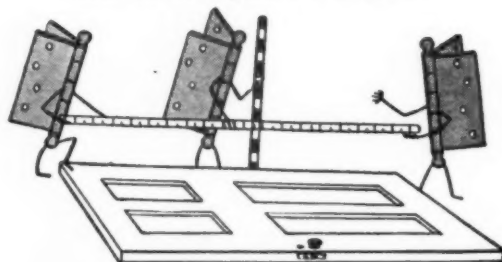


THE THIRD HINGE on every door in a home of twelve to fourteen doors would add very little to the cost of the hardware—but it would be hard to estimate the money it might save by preventing later repairs and replacements, and the annoyance, dissatisfaction, inconvenience and trouble it will avoid for the home owner.

"Three hinges to a door" throughout the house will assure free-swinging doors, with no sagging, sticking or warping—latches and locks that stay in perfect alignment and that operate efficiently . . . easy-moving doors that remain in good condition for the life of the building.

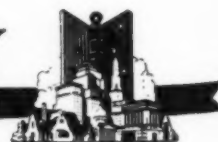
When you recommend "three hinges to a door" throughout the building you are giving your clients advice on sound economy and good building practice . . . and you will gain their lasting good will if you point out these facts to them.

**RECOMMEND ALWAYS—
"Three Hinges to a Door"**



McKINNEY

MANUFACTURING COMPANY
PITTSBURGH 13, PENNSYLVANIA



HE HAS THAT SATISFIED LOOK

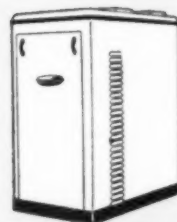


... and for very good reasons

His Viking Dealer has just completed an apartment heating contract only two days late—the same Viking Dealer is making fine headway with an air-conditioning contract for a store remodeling job and, this morning, Mr. Viking is in again with the winning bid for heating ten G. I. houses. Good jobs and better performances are Viking Dealer habits, because:

1. he has proven his ability to give good service, and he is backed by the help and resources of an established Distributor nearby.
2. he can provide complete engineering and application data for every job.
3. he understands it is necessary to work in harmony with other crafts as a job progresses.
4. he gets more business because his VIKING line covers every heating and cooling need, and fits every fuel condition.
5. he knows how to figure his work so that he comes up with a better job for the Builder.
6. he follows through with competent service, long after the Builder has moved on.

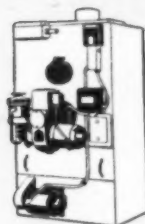
Mr. Builder, if you haven't connected with the Viking Dealer by this time, write to us for his name and telephone number. You will be delighted to have an able business man handle your heating subcontracts.



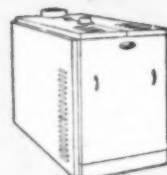
Oil and Gas
Furnaces



Water
Heaters



Utility Room
Furnaces



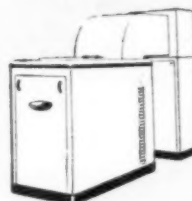
Boilers



Space Heaters



Floor Furnaces



Year-Round Air
Conditioners



Conversion
Burners



Room Coolers



Coal
Furnaces



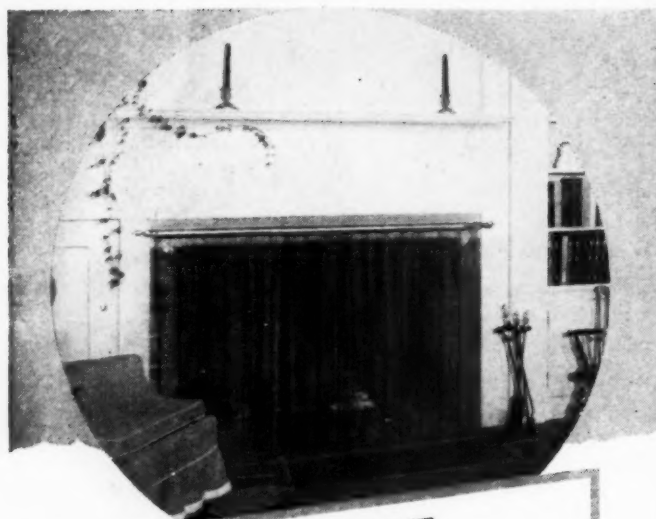
Domestic Stokers

THE VIKING MFG. CORPORATION

1747 Chester Ave., Cleveland 14, Ohio

The VIKING Complete
line of Heating, Cooling and
Year-Round Air Conditioning
Equipment — Fuel-Oil, Gas
or Coal-Fired.

WARM IN WINTER . . . COOL IN SUMMER



*... the gracious finishing touch
that means so much to a woman!*

Flexscreen delights the prospective buyer at first sight ... helps tremendously in making the sale a *certainty!*

Beautiful, Flexscreen brings sheer, compelling loveliness to the fireplace in *such a practical way!* Graces the hearth with radiant charm ... as it stops flying sparks from burning holes in rugs, floors, furniture.

Flexscreen becomes a permanent part of the fireplace. Exclusive Unipull makes it *easy* to open or close *both* curtains at *one time* with *one hand*. It need not be lifted aside to add fuel, or to clean. *No bother, no burned hands.*

Made of flexible, woven-metal fabric, Flexscreen *drapes like silk*, looks *so rich, so luxuriant* ... yet the cost is *negligible*. As low as \$12.50 ... certainly very little for a *lifetime* of useful and decorative service!

Your local dealer can supply you promptly with Flexscreen in *any* size, style, type or finish. It is nationally advertised in favorite magazines, universally desired.

Use this beautiful accessory to help sell *every home you build!*

Send for our new Flexscreen catalog.

BENNETT-IRELAND INC.

MAKERS OF FRESH-AIRE FIREPLACE UNITS

1046 MARKET STREET • NORWICH, NEW YORK

NOW in New Plastic Protective Case!

POWER CUTTER KIT

with a cutting range of
5/8" to 2 1/2"



Only
\$7.85
Complete

Two Bruno
Adjustable
Hole Cutters
in one con-

venient, permanent case that keeps tools clean and blades sharp. High speed steel blade cuts clean, fast holes in metal, wood, plastics. Quickly adjustable and easily sharpened ... Designed by tool engineers to operate efficiently in bench drill, drill press, or portable drill.



Ask your jobber
or write Dept.
AB-10

POWER CUTTER KIT CONTAINS			
MODEL	SHANK SIZE	EXPANSION	PRICE
100	1/4" st. shank	5/8"—1 1/2"	\$3.00
101	3/8" st. shank	1"—2 1/2"	\$5.00
790 KIT		5/8"—2 1/2"	\$8.00*

* Fair Trade Minimum \$7.85

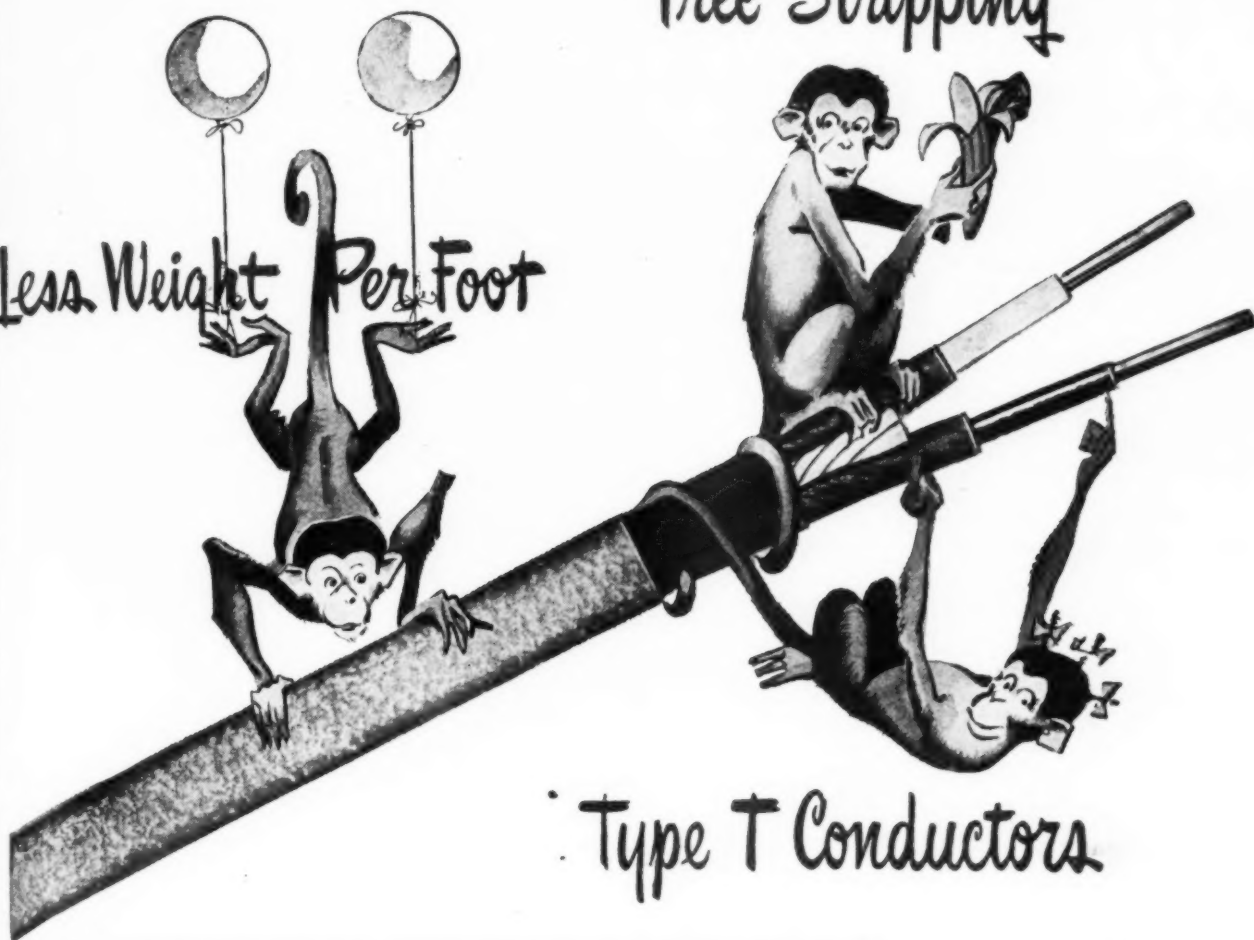
BRUNO

TOOLS

9330 Santa Monica Blvd.
Beverly Hills, Calif.

Free Stripping

Less Weight Per Foot



Type T Conductors

IT'S PVX THE NEW NON-METALLIC
SHEATHED CABLE FOR RESIDENTIAL
AND FARM WIRING

Take a good look at the benefits of this new thermoplastic-insulated cable. Check its features against your clients' requirements. You'll find many reasons for specifying it for new wiring, or re-wiring work.

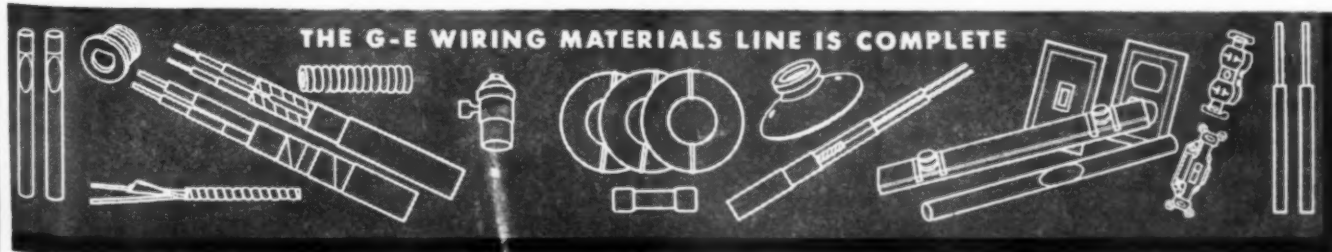
The Type T thermoplastic-insulated conductors, paper wrap, and over-all braid on PVX all strip easily to save

time in making splices and connections. PVX (14-2) weighs only 77 pounds per 1000 feet, or 27 pounds lighter than comparable Type R non-metallic cable. This lighter weight makes handling and installation easier, reducing "wear and tear" on busy workmen. The over-all braid is tough and moisture resistant, with an improved finish that

makes it smooth and non-tacking.

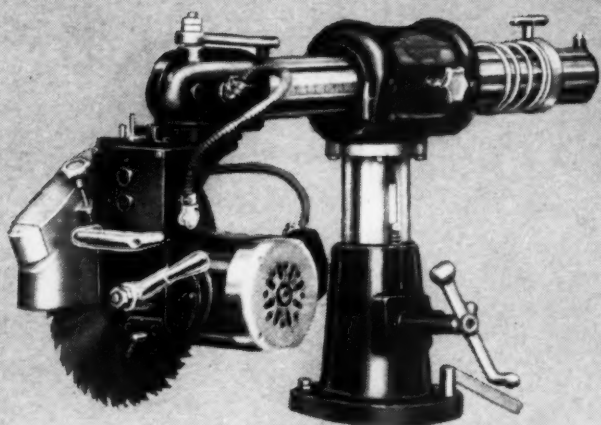
There are many other advantages that make PVX especially well suited for open and concealed work where permitted by local Codes and the National Electrical Code. It resists flame, oils, acids, and alkalis. Conductors are permanently colored for positive identification. PVX is available with two or three conductors in sizes 14 to 4, approved for 60 C operation.

Ask your G-E Merchandise Distributor for more complete information, or write to Section W15-1080, Appliance and Merchandise Department, General Electric Company, Bridgeport, Conn.



GENERAL  ELECTRIC

Flashing COMET POWER



OFFERS TOP ADVANTAGES



The inherent ability of all Comet Radial Power Saws to cut with sustained hi-speed offers superb advantages to all owners. These fine power saws pyramid profits, reduce costs on every job they tackle. They are extremely strong and massive in construction. Yet they are so perfectly balanced as to respond almost to finger-tip pressure. Comet power, precision, and endurance offer the builder a profit combination too valuable to pass. Order from your dealer or write direct.

CONSOLIDATED MACHINERY & SUPPLY CO., LTD.
2029-33 Santa Fe Avenue, Los Angeles 21, California

COMETS cut quicker



"I want my Floors
INSTALLED FAST
and INSTALLED
TO LAST—"

The Tile-Text Asphalt Tile Contractor Gives You That Kind of Service And That Kind of Product

Builders everywhere recognize the extra values they get in flooring with Tile-Text Asphalt Tile. They appreciate the intelligent, prompt, and expert installation service which a Tile-Text contractor is equipped to render. They know from experience the advantages of Tile-Text Asphalt Tile over similar types of flooring.

Here is an asphalt tile flooring that's made right, installed right, and performs right. Tile-Text Asphalt Tile contractors are located in nearly all principal cities and towns throughout the country. Ask for the name of the one in your city—and for a copy of the new Tile-Text booklet "Floors That Endure."

THE TILE-TEXT COMPANY, INC.
Asphalt Tile Mfr.

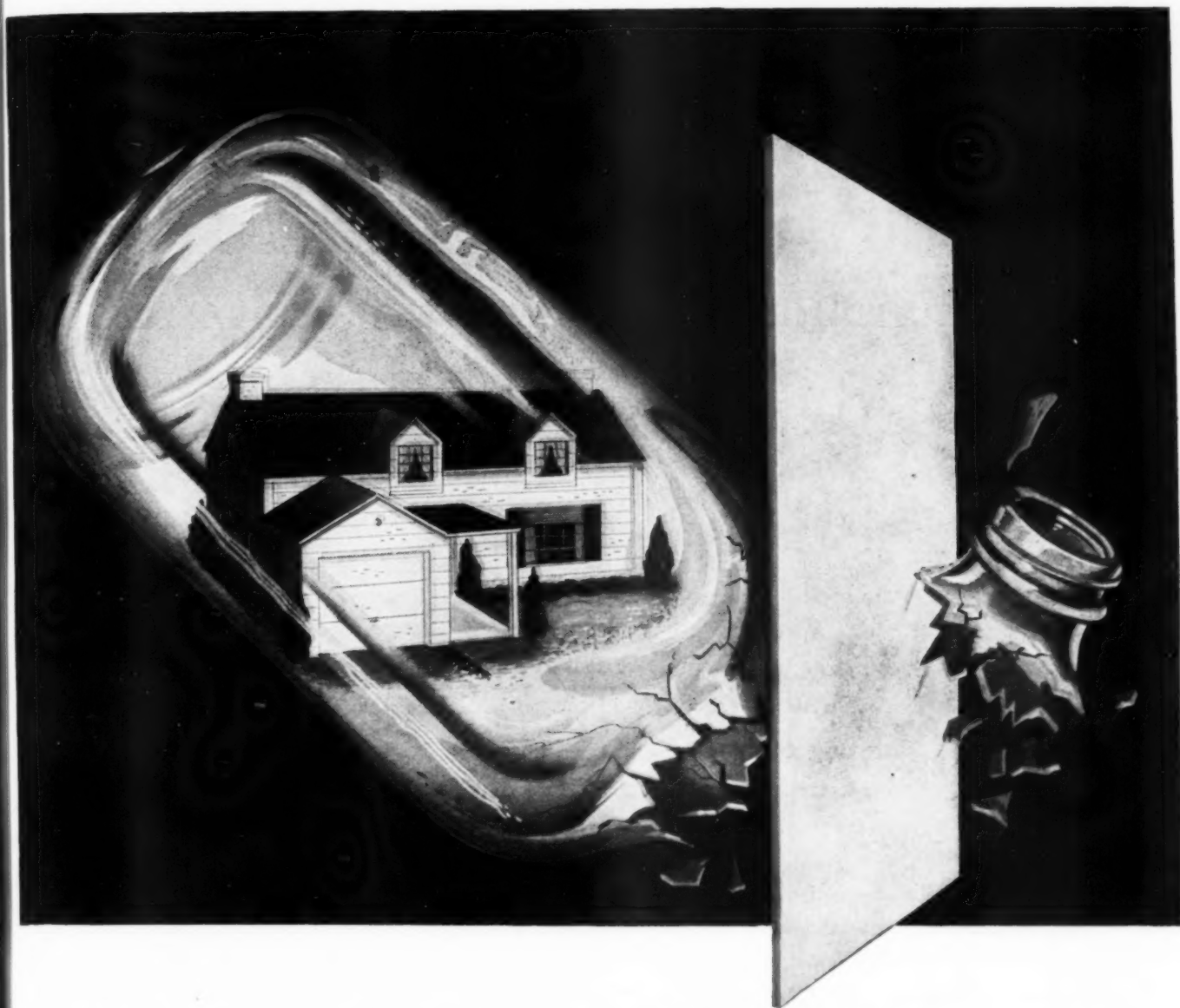


Subsidiary of The Flintkote Company
Chicago Heights, Illinois
220 E. 42nd Street • New York City

**Tile-Text
Asphalt Tile**

**FIRST in
FLOORING**





Helping to Break the Bottleneck

Sheetrock*, the fireproof wallboard, is one outstanding material that lends itself to fast, easy application in these days when housing for 4,000,000 people is needed so desperately. These big panels cover up to 48 sq. ft. of wall or ceiling at a time, are quickly cut and fitted. Then Perf-A-Tape* Joint System "welds" them into smooth, trouble-free surfaces. Even faster for remodeling is Bevelled Edge Sheet-

SHEETROCK
FIREPROOF
WALL & CEILING
PANELS

rock; it can be decorated as soon as the last nail is in. And Sheetrock is made of gypsum, a mineral which cannot burn. This versatility is the reason why the demand for Sheetrock still is greater than the supply. But more and more is being produced every month . . . we are close to record-breaking

volume. Large Sheetrock book of complete data available. Write to 300 W. Adams St., Chicago 6, Ill.

*Trademarks Reg. U. S. Pat. Off.



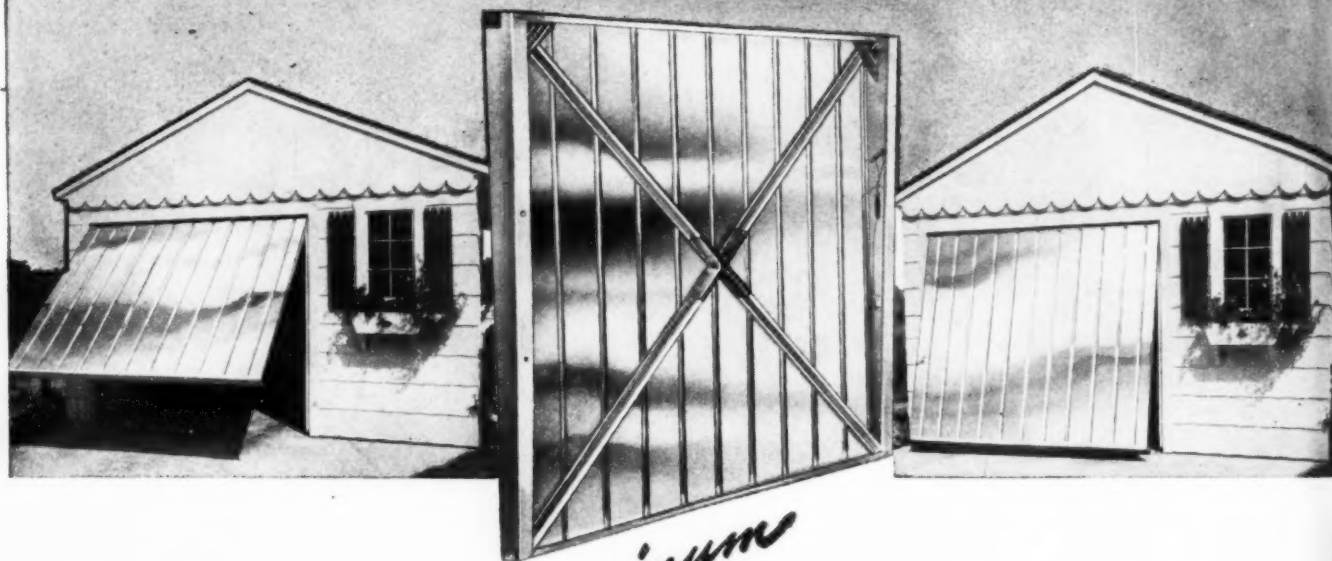
United States Gypsum

For Building • For Industry

Gypsum • Lime • Steel • Insulation • Roofing • Paint

READY NOW

FOR BUILDING SUPPLY AND LUMBER DEALERS



An amazing

aluminum

Garage Door operating on **FLOATING TENSION.**

Hangs on BALL BEARINGS. Floats up and down at touch of fingers. **ONE PIECE** welded airplane type construction. Weighs only **101 POUNDS.** Can't rust. Can't rot. **CAN'T SAG.**

Vermin-Proof! THOUSANDS proved in actual use. **IN QUANTITY PRODUCTION NOW** for leading lumber and building supply dealers. A few territories open to accredited distributors. For complete information—phone, wire, write or **MAIL THIS COUPON.**

JUST A FEW OF ITS FEATURES!

- Fully enclosed dual lifting mechanisms. No exposed springs, weights, wheels or levers.
- Light—easy to install. No assembly on job. Fits standard 8' x 7' frame. One piece rubber weatherstrips at top and bottom.
- Hinge point only 3' below top of frame. No waste space.
- No painting required, but may be finished in any home color plan. Suitable for any climate.
- Guaranteed by Wilson Foundry & Machine Co., since 1915 manufacturers of quality products for the automotive industry.

WILSON
Easy-Lift

aluminum
GARAGE DOORS

The Wilson Foundry & Machine Co.
11 Wilson Avenue,
Pontiac, Michigan.

Gentlemen: Send me full information about Wilson Easy-Lift Garage Doors.

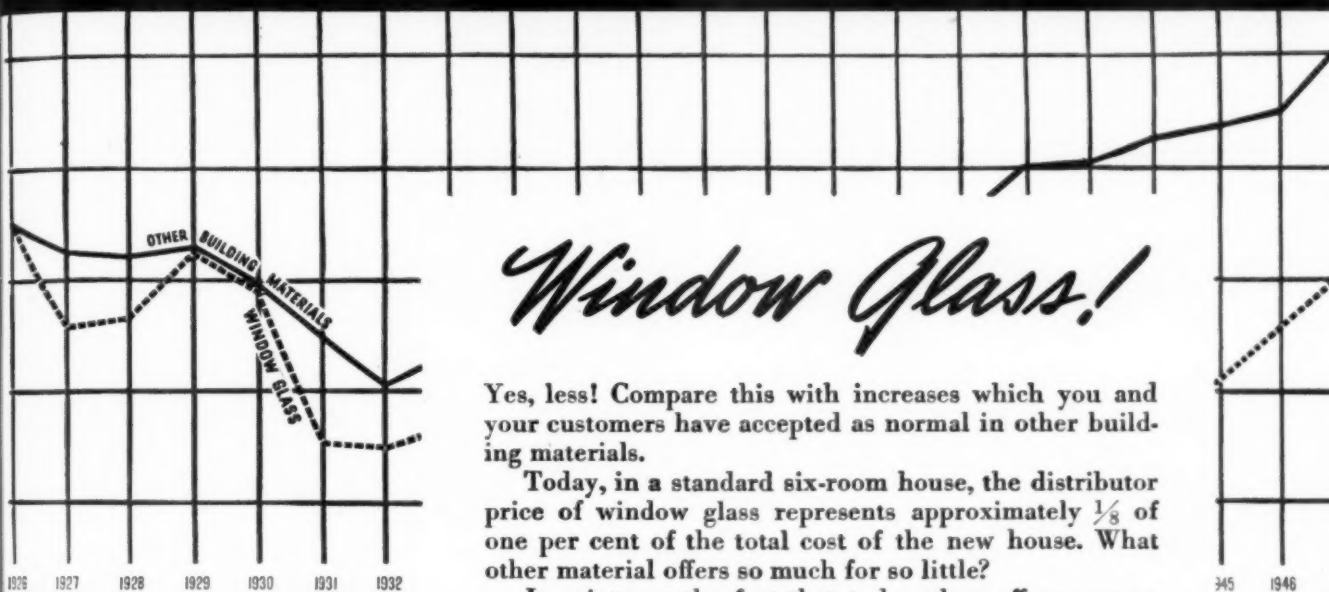
your name

name of company

address

nature of business

What Building Material Now Costs Less Than In 1926?



Window Glass!

Yes, less! Compare this with increases which you and your customers have accepted as normal in other building materials.

Today, in a standard six-room house, the distributor price of window glass represents approximately $\frac{1}{8}$ of one per cent of the total cost of the new house. What other material offers so much for so little?

It points up the fact that today glass offers you an opportunity to give home buyers the bigger windows they want without materially increasing costs.

Remember, larger windows make the small home seem more spacious—and every square foot of glass in a wall means just that much less use of other materials . . . materials that now cost more. Libbey-Owens-Ford Glass Company, 51106 Nicholas Building, Toledo 3, Ohio.



Architect, Paul Thiry



LIBBEY · OWENS · FORD
a Great Name in **GLASS**



Ralph Stuetzel, Architect

*"Easy does it"
when you specify*



EAGLE Ready-To-Use WHITE LEAD PAINT

Here's a paint with a new plus—*greater brushability*. It gives better, more even coverage—leaves practically no brush marks. It's a more satisfactory paint for home owners, easier for painters to use. The velvety smoothness of Eagle RTU is a triumph of Eagle-Picher research.

From the original white lead formula

Master architects and builders recognize that for 2000 years white lead has had no equal for durability, beauty and economy. Eagle Ready-To-Use White Lead Paint retains the qualities of the original white lead and adds new convenience. It is ready to open, stir and apply. This marvelous paint will give stalwart protection to the surfaces of your buildings. It dries to a whiter white, doesn't crack or scale, but "breathes" with the surface. It ages gracefully by even chalking.

Two forms: Primer Sealer and Outside White. It is being made available as rapidly as production will permit.

THE EAGLE-PICHER COMPANY

Cincinnati (1), Ohio

Member of the Lead Industries Association



EAGLE PURE WHITE LEAD

A favorite
since 1843



Eagle White Lead
in Oil

Concrete Work—

(Continued from page 96)

of vermiculite and structural concrete above.

It is important that the subgrade be well and uniformly compacted to prevent any unequal settlement of the floor slab. Where required, provisions can be made for embedding ducts or pipes for heating systems, and supply and waste plumbing lines under the granular fill.

Terrazzo, concrete tile, ceramic tile, asphalt tile, and wood flooring are the coverings most widely used for concrete floors on ground.



Waterproofed concrete masonry house.

Waterproofing Compounds

With the ever increasing use of concrete masonry in the construction of houses, the need for adequate waterproofing material has become apparent. A number of these are now available. Prepared in powder form it merely requires the application of liquids to produce a smooth acting, decorative coating thoroughly sealing the surface of the masonry from the elements. Two coats of this type of material applied over the most porous surface can make it waterproof.

Waterproofing of the foundation walls today is an accepted fact through the application of asphalt products to the exterior surface.



Wood forms for concrete wall construction.

Concrete Wall Forms

To speed up construction and provide smooth concrete surfaces for the foundations of the new houses that are being built all over the country.

PROMPT SHIPMENT!

HOESS ALUMINUM SIDING

and ROOFING

Another Great Advance in the Application of Engineering Principles to House Construction

Lifetime Durability • Low Maintenance Cost • Preserves Traditional Designs • No Sheathing Required • Weatherproof Rustproof • Rotproof • Verminproof • Supplies Extra Insulation Requires Less Paint • Provides Increased Fire Protection

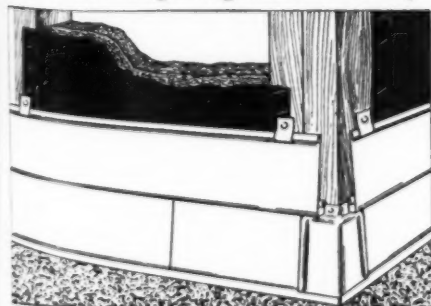
To meet the fast growing demands of many builders, Hoess Aluminum Siding and Roofing now is in volume production. Shipments are being made promptly.

The product is a patented section of rolled aluminum, formed to interlock with other sections. It is produced in 4", 6", and 8" widths; 12' lengths. The exposed surface has a bevel similar to wood siding. When applied and painted, uniformity of sections makes a *more beautiful appearance than conventional construction.*

Each section is formed with a "U" shaped channel at the bottom. The top edge is rolled over so that it interlocks with the "U" shaped channel of the piece above it, thus forming a *weathertight seal.*

For application, a special clip is hooked under the top edge and nailed to the stud. This method allows the siding to move slightly to compensate for weather changes without movement or straining of studs.

Showing use of clips in applying the siding. There is no nailing through the sections.



↑ *More beautiful than clapboarding. Simple, easy to apply.*

← *Architects praise the crisp, precise beauty and shadow lines of Hoess Aluminum Siding.*

A special die-cut feature at one end of each section makes it possible to lap the siding effectively. A special reinforcing ridge gives all needed strength so that it is *not necessary to break joints over the studs.* This means, there is a minimum loss from cutting on the job. Special corner pieces cover the ends of the siding at the corners.

When desired, *sheathing can be eliminated!* Before siding is applied, a 2" blanket insulation is nailed to the studs so that the insulation is positioned between them. Inside, vapor-

sealed wallboard or plaster is used as in conventional construction. If preferred, Hoess Aluminum Siding can be applied over ordinary sheathing in the usual way. Cutting is done with a power saw using a metal-cutting blade; with shears or standard hacksaw. Painting is simple.

Hoess Aluminum Roofing is identical with the siding in construction and application.

For full information and prices, phone, wire, write or mail the coupon below.

METAL BUILDING PRODUCTS, INC.

Dept. 11, 8825 Grinnell Street, Detroit 13, Michigan

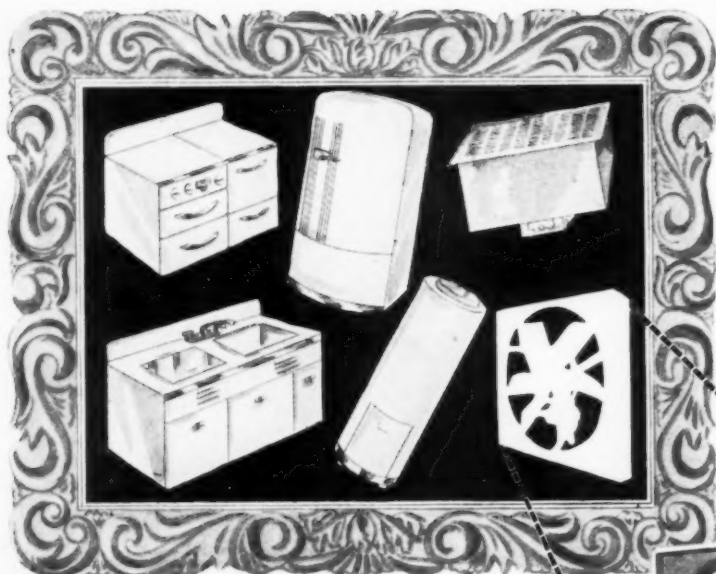
Mail me information and prices on Hoess Aluminum Siding and Roofing.

Your Name _____

Company Name _____

City _____ State _____

Nature of Business _____



Mr. Builder: Complete your Sales Appeal Picture!

You, Mr. Builder, may be overlooking an important item which can complete the sales appeal picture of your homes. This is the assurance of buyer comfort afforded by a BAR-BROOK Attic Fan.

The BAR-BROOK Attic Fan is an engineered unit which cools a house by drawing in a natural breeze through windows or doors and forcing out hot, stuffy air. Efficient, silent, and economical, BAR-BROOK offers the following advantages: Easy installation, trouble-free performance, one-piece streamlined orifice, and capacity ranges from 7500 CFM to 21,000 CFM (ratings determined by tests made in strict accordance with Standard Test Code adopted by the American Society of Heating and Ventilating Engineers).

Complete your sales appeal picture NOW. Write for information, and plan to include BAR-BROOK Attic Fans in your specifications!



**SHREVEPORT
ENGINEERING CO.**

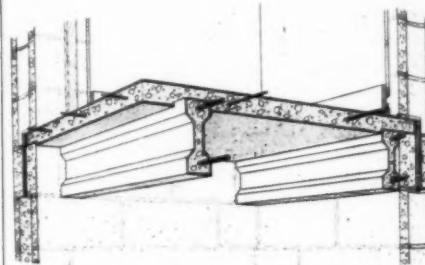
1553 Texas Ave. Shreveport, La.

contractors and builders have found that plywood can be relied upon to serve them best. Panels are braced with framing members and built up in various size sections so that they can be interchangeable. This permits the sections to be continually reused.



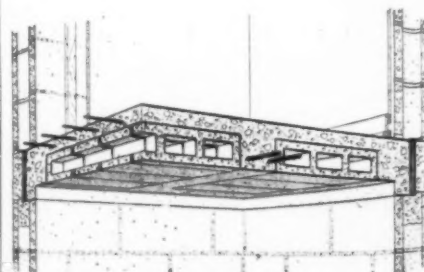
Precast joists being placed in position.

Concrete floors for medium priced homes became an actuality with introduction of the precast concrete joist. Designers and builders have been quick to recognize the superiority of the concrete floor—its great strength and rigidity; freedom from warping, shrinkage and squeaking; its security against fire and its trouble-free economy.



Precast joist floor.

There are several types of concrete floors which may be economically used in home construction. Three kinds are illustrated above and below. A rapidly developing type of concrete floor, shown above, is made by placing a reinforced concrete slab over precast reinforced concrete joists. The joists may be exposed, if desired, as a beamed ceiling and then can be painted to conform to the room decorations.



Concrete block joist floor.

The drawing above shows a recently developed type, known as concrete block joist construction, which uses filler units placed in-

THERE'S NO ^{market} PLACE LIKE HOME



Better Homes and Gardens

READ BY MORE THAN 2,050,000 FAMILIES
OCTOBER 1946 • 15 CENTS 25¢ IN CANADA

WHO'S going to build the first postwar homes, or do the first remodeling?
People who have the money saved to do it.
Better Homes & Gardens readers who intend to build have an average of *half* the money they plan to spend saved up.
Where could you hit a better jackpot?

America's First Service Magazine

- Military Training for Your Coy?
- New Ranges, Mattresses, Fabrics, Functional Furniture

1947 Circulation Over 3,000,000



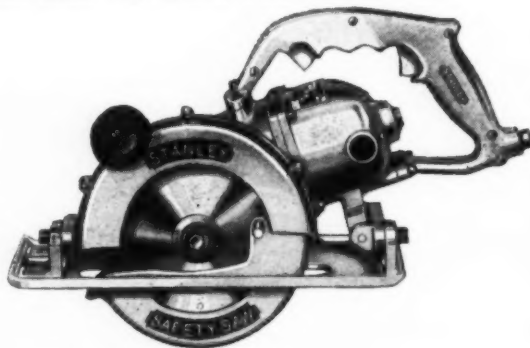
with a Stanley W-7 Safety Saw

Let your carpenters use their heads. Let a Stanley W-7 Safety Saw do the muscle work. This rugged, powerful power saw sends a combination rip and cross cut blade fast, clean and true through the toughest, greenest beams and framing pieces. Made to handle easily in any position, thanks to perfect balance and

the Duplex Handle. Makes straight cuts up to $2\frac{1}{2}$ " and bevel cuts up to $1\frac{1}{8}$ " at 45° . Safety guard keeps edge covered at all times.

Write today for descriptive literature... and ask your distributor for a demonstration. Stanley Electric Tools, New Britain, Conn.

Stanley W-7 Safety Saw... heat-treated aluminum alloy base for strength with minimum weight; tilting base; trigger switches, arranged for independent use according to grip; operates on A. C. and D.C.



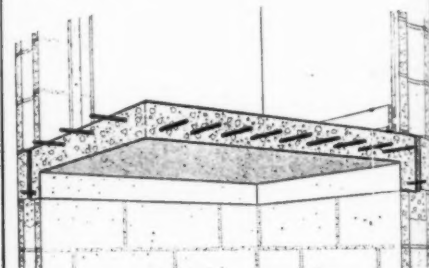
STANLEY

Trade Mark

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

tegrally with the concrete slab. The underside of this floor can be painted or plastered.

This type of floor construction necessitates a minimum of wood forms to support the concrete block fillers until such time as the concrete has sufficiently hardened to permit their removal. Units should be butted together to form a tight joint preventing leakage.



Solid slab floor.

The solid slab floor shown in the sketch above is generally about four to six inches thick and is built of reinforced concrete. It provides a flat ceiling which may be plastered directly or decorated by painting. Any kind of floor finish may be applied on top of the various types of concrete slabs shown.

Modular Planning

Rapid strides are now being made by the building industry in the acceptance of the principles of modular planning and dimensional coordination as related to building construction.

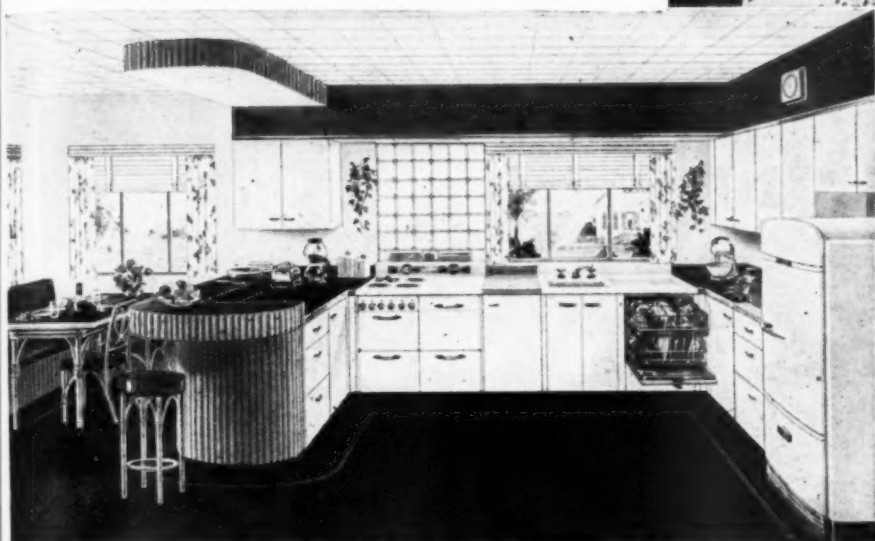
The American Standards Association, a committee sponsored by the American Institute of Architects and The Producers' Council, was organized as a cooperative industry approach to this problem. They have defined modular planning as the dimensioning of building units so that they will fit together and the use of building dimensions consistent with such coordinated sizes.

The clay products manufacturers were the first industry to agree to produce modular unit sizes. They have taken the leadership in this movement by announcing that modular masonry products will be available as soon as materials can be obtained for new dies and equipment.

The new modular masonry units will eliminate the fractional dimensions in length, height and thickness that have always complicated building layout and design.

The last twenty years have been years of research for the cement and kindred industries. The results of their efforts assure builders of improvements and economies that will be reflected in better buildings.

In just 20 years!
FROM THIS



TO THIS!

Builders benefit from Hotpoint's leadership in the electric kitchen field!

LIVING comfort has advanced tremendously in the last 20 years . . . and nowhere with greater strides than in the kitchen. It's a far cry from the coal stove and old style sink to the streamlined Hotpoint electric kitchen of 1946. Here truly are the appliances of tomorrow in use today. From the superb new Range and Dishwasher to the smallest matching cabinet, Hotpoint kitchens make good homes better!

Since homes in most income brackets are

now completely equipped by the builder, your designs must make maximum use of all the improvements in equipment and materials. Hotpoint's *Portfolio of Personalized Kitchen Plans* provides complete information and planning guidance on the functional, all-electric kitchen. Attach the coupon below to your letterhead and mail to us today for your copy of this helpful *Portfolio*. Edison General Electric Appliance Co., Inc., Chicago.

The Hotpoint Institute
5641 W. Taylor Street, Chicago 44, Illinois

Without obligation, please send me your *Portfolio of Personalized Kitchen Plans*. This offer available in United States, Territory of Hawaii and Alaska.

Name _____

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Dependability Assured by 40 Years Experience

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In most states, all Hotpoint kitchen equipment can be included in F. H. A. insured mortgages

MORE THAN 5 OUT OF EVERY 10 FAMILIES PLANNING TO BUILD WANT SEPARATE SHOWERS



Of 11,428 families with building plans now under way well over half will have separate showers (not just a shower over the tub) in their new homes.

This answer was given in a recent survey made by Better Homes & Gardens. Names for the survey were supplied by F. W. Dodge Corporation. In the \$5,000 price group 45% said their plans include a separate shower. As the home price increased the percentage rose—to 65% in the \$15,000 class.

These figures check with other carefully made surveys. They all reflect the rapidly growing demand for the full enjoyment and convenience of shower bathing which only the separate shower affords.

The quality of Weisway Cabinet Showers has been a big factor in winning this acceptance of Cabinet Showers as standard bath equipment.

INSTALL

Weisway

CABINET SHOWERS

Product of the pioneer
manufacturer in this field.

Quality-proved, service-
tested through years of
actual use.

Vitreous porcelain recep-
tor, with exclusive "foot-
grip, no-slip floor."

Precision built, leakproof,
easy to install.

Models for homes in every
price class.

Write now for detailed
information, without
obligation to you.



HENRY WEIS MFG. CO., INC., 1001 Oak St., Elkhart, Indiana

Real Estate Management Problems Studied

UNDER the sponsorship of the Institute of Real Estate Management, and in co-operation with the San Diego Realty Board, a case-study course in the principles of real estate management was conducted in the San Diego Hotel, San Diego, Calif., from Sept. 30 to Oct. 5.

The subjects studied were analysis of neighborhoods, commercial leasing, residential renting, methods of obtaining new business, maintenance of mechanical equipment, record keeping and accounting, owner and tenant relations, and taxes and their relationship to profits.

Kendall Cady and James C. Downs of the Real Estate Research Corp., of Chicago, F. Durand Taylor, head of Durand Taylor Co., New York, and Delbert S. Wenzlick, president of Wenzlick Sales and Management Organization, Inc., St. Louis, lectured.

* * *

Monsanto Plans Expansion Of Production Facilities

MONSANTO Chemical Co. has announced that the purchase from the War Assets Administration of the styrene plant located at Texas City, Texas, is part of a program to expand the company's polystyrene plastic production to a rate of more than 80 million pounds by early 1947. The plant was designed and constructed by Monsanto for the government in 1941. The purchase price was \$9,550,000.

Felix N. Williams, vice president of Monsanto and general manager of its Plastics Division, said the purchase is "among the largest programs ever undertaken by a single supplier of plastics materials." He further stated that the company's expanded production will go far toward helping alleviate a nationwide shortage of plastics materials, especially styrene plastic. Most authoritative estimates have held it will require five years for supply to meet demand.

* * *

Refrigeration Exposition in Cleveland, Oct. 29-Nov. 1

MORE than 20,000 refrigeration manufacturers, wholesalers, distributors, dealers, service engineers, and frozen food locker operators are expected to be on hand when the Fourth All-Industry Refrigeration and Air Conditioning Exposition in Cleveland opens on Oct. 29. In addition, hundreds will represent industries allied with refrigeration, air conditioning and frozen foods.

There will be nearly 300 exhibits occupying 75,000 square feet of floor space to demonstrate the full extent of the industry's progress since January, 1941, when the last all-industry display was held.

The exposition will provide a complete and comprehensive picture of the postwar mechanical refrigeration, air conditioning and frozen food equipment industry. Visitors will see displays which range from an electric motor running under water to show its moisture-proof design to a miniature modern

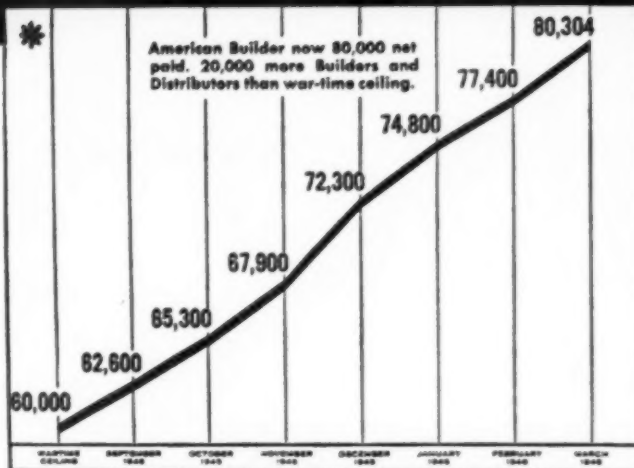
Whether or not the Wyatt Program hits 2,700,000 homes in '46-'47.... most of them will be built or supplied by American Builder's 80,000* subscribers

Labor statistics showed that 75,000 builders erected 100% of the one-family houses built in 1938.*

Today American Builder has 80,000 subscribers with better than 60,000 on the building side.

So it would seem reasonable to assume that American Builder reaches most of the Builders who will build today—and most of the Distributors and Dealers who will supply those Builders and Contractors. (Dealers themselves have normally accounted for 18% of urban and farm home building.)

* Although the last authoritative figures on urban building were supplied by the U. S. Bureau of Labor Statistics for 1938—the last normal year of building—they are still of significance to manufacturers who have something to say to the Builders, Distributors and Dealers who will account for the bulk of whatever building is done under the Wyatt program in 1946-47.



The vast majority of new subscribers entered since lifting the war-time ceiling have been worth-while Builders, Contractors and Distributors.

Building Materials Distribution Data Available

For the convenience of those interested in studying the established systems of channeling various types of products through the Light Construction Industry's distribution network, American Builder has assembled a thorough-going but simplified set of descriptive flow diagrams. These, and a full range of additional marketing data, have been recently compiled in a 32-page booklet which manufacturers are finding helpful in planning distribution and sales.



See Standard Rate and Data, Class. 19, Business Paper Section, for further information on the building market and American Builder's service to the industry.

American Builder, Research Department AB-10
105 West Adams Street, Chicago 3, Illinois

Please send me, without obligation, my free copy of the American Builder Market Study "1946-1948 BUILDING Residential — Commercial — Farm."

NAME _____
COMPANY _____ POSITION _____
STREET _____
CITY _____ ZONE _____ STATE _____



CHICAGO 3, ILLINOIS: 105 WEST ADAMS STREET
NEW YORK 7, NEW YORK: 30 CHURCH STREET

LATEST COMPLETE DATA on EFFICIENT, UPWARD ACTING DOORS



You'll want this new guide-book on doors for every need! It gives you all the up-to-the-minute facts on the quick, space-saving, dependable performance of Kinnear Rolling Doors . . . shows how the smooth, coiling, upward action of the famous, Kinnear-originated, interlocking-slat construction assures extra door satisfaction. Full details on the popular sectional-type Kinnear RoL-TOP doors, of either wood or all-steel construction, are included. Also latest data on many other types of upward-acting fire doors, service doors, and protective grilles. Write today for your free copy!

The KINNEAR Mfg. Co.

Factories:

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1742 Yosemite Ave., San Francisco 24, Calif.

Offices and Agents in All Principal Cities

KINNEAR

ROLLING DOORS



frozen food locker plant. They will see the newest refrigerators, freezers, frozen food storage units and air conditioning equipment.

Schedule of show hours for the entire exposition is as follows: Tuesday, Oct. 29—12 noon to 6 p.m.; Wednesday, Oct. 30—12 noon to 6 p.m.; Thursday, Oct. 31—12 noon to 10 p.m.; Friday, Nov. 1—10 a.m. to 4 p.m.

* * *

Branch Manager for Mengel

JAMES C. PRESCOTT has been appointed branch manager of the Elizabeth City, N. C., plant of The Mengel Co. All departments and operations of this branch, including logging and towing, will be under Mr. Prescott's direction. This plant was recently acquired from the Foreman-Derrickson Veneer Co., with which Mr. Prescott has been associated since 1932.

* * *

Building Trades Apprentice Training Increases

THE number of apprentices in the building trades continued to increase, with 67,387 listed at the end of August, according to William F. Patterson, director, Apprentice Training Service, U.S. Department of Labor.

This number represents a gain of 8.9 per cent over the 61,900 on file at the end of July. The August figure is based on 2,583 reports received by Apprentice Training Service from its field staff, but does not represent complete coverage of the United States. The greatest



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WATERPROOFING
PRODUCTS

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The Saturday Evening Post

FOR WATERPROOFING
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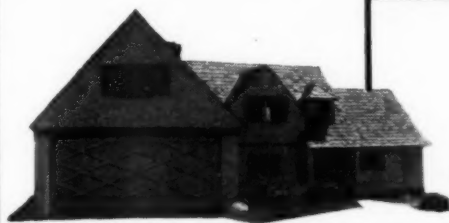
WALLS

Inside or Outside

Apply with Brush or Trowel

Submit your problems and measurements to our Engineering Department for estimate. Write today for complete descriptive booklet on American Fluresit Products and their uses.

The AMERICAN FLURESIT CO., Inc.
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THEY WANT MORE THAN A DOOR



● Owners of tomorrow's homes are today selecting plans which bring the garage "into the house." They want garage doors of the over-head type . . . and they expect the door design to harmonize with building architecture. You can give them specially designed, custom-built doors, *plus* amazing simplicity and convenience, by recommending Frantz "Over-the-Top" Door Equipment. Investigate today the many advantages offered by this popular, guaranteed hardware.

FRANTZ

GUARANTEED BUILDERS HARDWARE

FRANTZ MFG. CO., STERLING, ILL.

Now! GREATER PRODUCTION

of the tools that cut your production costs



Fred W. Wappat Plant Adds Floor Space, New Equipment

Manufacturing capacity of the Fred W. Wappat plant on Chautauqua Lake at Mayville, N. Y., has been increased 150%. Latest type machine tool equipment, as well as additional facilities for scientific inspection and testing, have been installed. As always, rigid shop standards apply through each manufacturing operation.



A larger Fred W. Wappat plant increases output of multi-purpose Fred W. Wappat Electric Hand Saws, and Portable Radial Guides

Production has been upped on all Fred W. Wappat tools, through installation of new precision equipment and an addition to the Fred W. Wappat plant, at Mayville, N. Y. Here is where the versatile Fred W. Wappat Model A-8" and Model A-9" Electric Hand Saws, used for cutting lumber and many other building materials from insulating board to light metal sheets, are made.

Radial Guides, which give Fred W. Wappat Saws every important feature of a radial saw, are also produced in this plant. Guides are used for production cutting on all square or angle cuts, and for scoring concrete flooring or cutting wide sheets. Bulletin S-10 gives details on Fred W. Wappat Electric Hand Saws; Bulletin S-8 describes the Radial Guides. Write for your free copies today. No obligation.

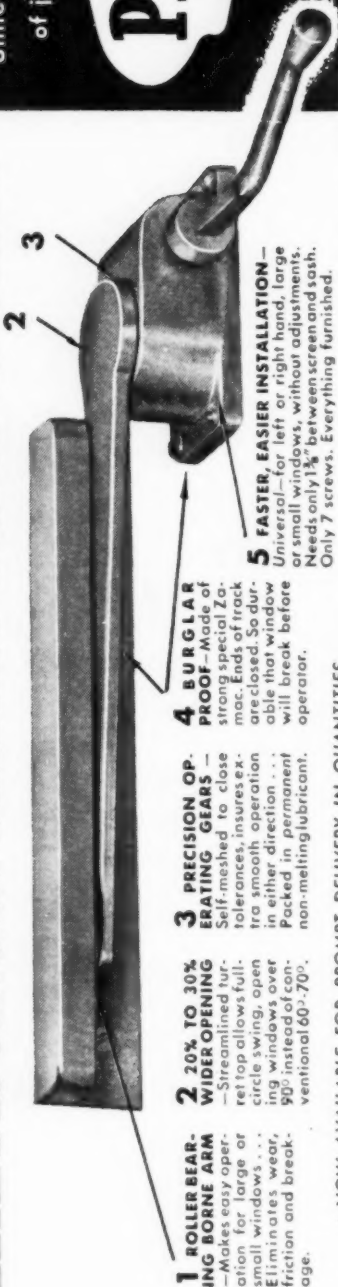
High-Speed Portable Electric Tools • Radial Guides • Service and Parts for Wappat and Alta Tools
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On Chautauqua Lake

Jobbers in principal centers of United States. Write for name of jobber in your locality

PARLYN
"Trade Mark"
LIMITED

707 South Broadway
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It's New! PARLYN Universal CASEMENT WINDOW OPERATOR



- 1 **ROLLER BEARING BORNE ARM**—Makes easy operation for large or small windows... Eliminates wear, friction and breakage.
- 2 **20% TO 30% WIDER OPENING**—Streamlined turn ret top allows full circle swing, open 90° instead of conventional 60°-70°.
- 3 **PRECISION OPERATING GEARS**—Self-meshed to close tolerances, insures extra smooth operation in either direction... Packed in permanent non-melting lubricant.
- 4 **BURGLAR PROOF**—Made of strong special Zamac. Ends of track are closed. So durable that window will break before operator.
- 5 **FASTER, EASIER INSTALLATION**—Universal—for left or right hand, large or small windows, without adjustments. Needs only 1 1/2" between screen and sash. Only 7 screws. Everything furnished.

NOW AVAILABLE FOR PROMPT DELIVERY IN QUANTITIES

Post-War
Features
Never
Before
Offered

increase was in the trowel trades, which showed a jump from 7059 to 8077, for a gain of 14.4 per cent during August. Percentage increases of apprentices during August for other trades are as follows: electrical, 5.9; pipe, 6.2; painting, 0.8; sheet metal, 2.8; woodworking, 12.9; others, 5.9.

Andersen Launches New Advertising, Sales Program

JAMES D. ROWLAND, director of sales for the Andersen Corporation, wood window manufacturers, Bayport, Minn., has announced that his company is launching a national advertising campaign for the express purpose of building a backlog of acceptance in normal times.

"... we are looking much further ahead than 1946—or even early 1947," declared Rowland. "We are planning ahead to the time when supply and demand reach a more normal balance. . . . In this way we shall be able to assure our distributive organization, composed of approximately 100 millwork jobbers and thousands of lumber and building supply dealers, that Andersen Windows will continue to be a fast-moving line.

"We hope, moreover, to provide the operative builder with a strong additional selling point when he installs our products in the homes he builds for sale."

The 1946 advertising campaign will be followed by a hard-hitting merchandising drive in 1947, with a full assortment of selling helps.

MARKWELL

STAPLES • TACKERS • STITCHERS
FOR EVERY PURPOSE



INDUSTRIAL STAPLES



GLAZIER'S ZINC POINTS

For All No. 1 & No. 2 Point Drivers.



Brushes

Trim Sash — Varnish — Glue
Stencil & Marking Inks

A Markwell Mfg. Co., Inc.

INDUSTRIAL PRODUCTS DIVISION

200 Hudson St.

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Banish



BLUEPRINT BLUES!

MAKE PRINTS . . BLUE PRINTS
.. PHOTOPRINTS in 1/5 the time
—saves up to 80%

WHY delay important work waiting for blueprints, black-and-white prints and photoprints—when you can make them in your own office or plant, in less time, at less cost? Use the **TORNADO Duplicator**, the modern device that *duplicates anything!*

Reproduces quickly, accurately, economically—drawings, tracings, documents, letters, etc. Reprints up to 24" x 34" on a 24x36 sheet, or makes several smaller prints in one operation. Anyone can operate. Takes little space. The modern, low-cost way to make prints of anything!

Request complete details
and free demonstration.

BREUER ELECTRIC MFG. CO.
5126 N. Ravenswood Ave., CHICAGO 40, ILL.

LEARN

to

ESTIMATE

Today, more than ever before, you must know how to analyze building costs. If you want to become a successful builder, learn how to prepare a correct estimate in a hurry. Get in on the profitable work now available wherever you turn. Your success is assured if your estimates are right; otherwise you are licked before you start.

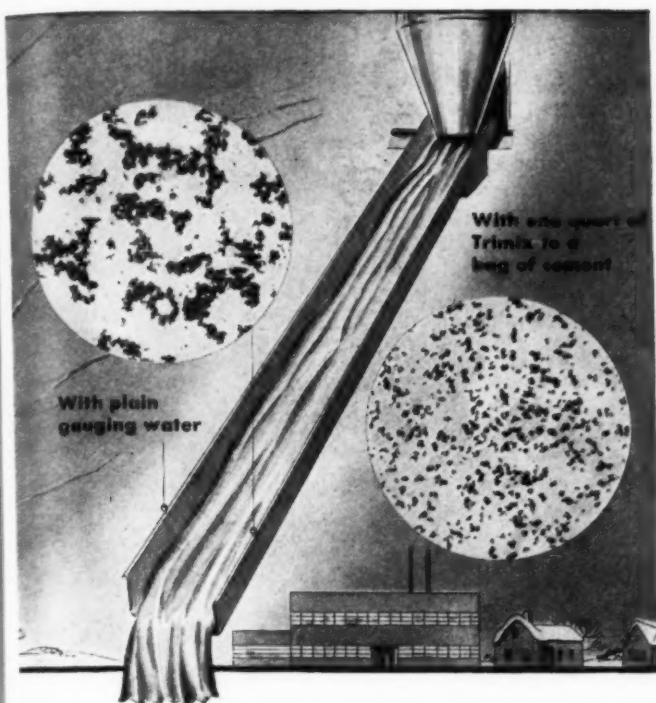
The Tamblin System of Estimating will make a real estimator out of you in a few weeks of your spare time. We are so sure that you will want to learn it, that we will send you our complete home study course for ten days examination absolutely free. If you don't think it is the finest thing you ever saw, just return it and it won't cost you a cent. If you like it and want it, send us five dollars a month until you have paid the total price of only thirty dollars.

This estimating system is based on forty years of actual construction experience. It has been sold all over the world for more than twenty years. Thousands of estimators and contractors swear by it. Our offer isn't hot air and big talk. We don't give you a diploma or a lapel button, but we do teach you down to earth estimating which will bring you profitable business.

Just send us your name and address today, and we will mail you the complete course at once for your approval.

TAMBLIN SYSTEM

210 Johnson Bldg., AD, Denver 2, Colo.



Better concrete because of better dispersion with **TRIMIX**

THE MULTI-PURPOSE INTEGRAL LIQUID ADMIXTURE

The magnified photographs show why TRIMIX improves workability of cement and mortar mixes with lower water-cement ratio—20% less than the usual volume of gauging water required for normal slump.

A patented surface-active agent enables TRIMIX to wet and scatter the particles without interfering with the hydration reaction of the cement.

TRIMIX accelerates set . . . also has air-entraining properties, helping concrete to resist effects of freezing and thawing.

See SWEET'S for further information, and for descriptive literature write Dept. B-10.

SONNEBORN 'BUILDING SAVERS'

Floor Treatments • Waxes • Paints and
Protective Coatings • Concrete and Mortar
Admixtures • Waterproofing and
Dampproofing • Caulking Compounds
Roof Coatings

IF IT'S
WORTH BUILDING
IT'S
WORTH SAVING

Building Products Division, **L. SONNEBORN SONS, INC.**, New York 16, N. Y.
In the Southwest: Sonneborn Bros., Dallas 1, Texas

The Ideal Combination!



WRIGHTFLOR

The rubber tile floor of floors! A leader for long life, lasting beauty and low maintenance! Because each floor is custom-styled, Wrightflor is suitable for *any* room. Because Wrightflor is easily cleaned and never needs refinishing, it is economical for *every* room. And Wrightflor's beauty is more than skin deep . . . the colors go clear through the tile, last *ad infinitum*. Wrightflor's resiliency makes it easy on the feet. Its high-density surface withstands scratches, dents and stains. Plan now for this modern flooring . . . it will soon be available in increasing quantities.

WRIGHT-ON-TOP

The perfect partner for Wrightflor is the flexible rubber compression base, Wright-On-Top.* Extremely durable, economical and smart-looking, this wall base is compressed to the floor . . . keeps out dirt, water and insects . . . stays snug despite floor shrinkage. Unparalleled for practicality, Wright-On-Top is easily cleaned . . . keeps its new appearance, never needs refinishing. Unmatched for versatility, Wright-On-Top looks well with floors and walls of every type . . . it's the modern finish for the modern building.

Write us for further facts, prices and specifications on Wrightflor and Wright-On-Top Compression Base.

TAYLOR MANUFACTURING COMPANY

Wright Rubber Products Division

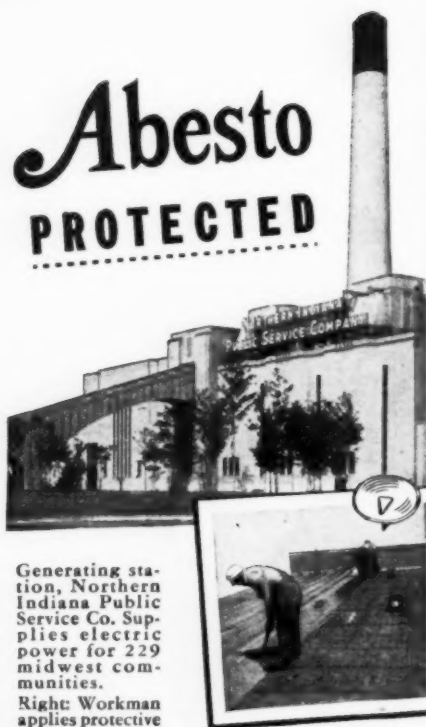
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U. S. PATENT NO. 2,300,094

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WRIGHT RUBBER TILE
Flooring of Distinction

Abesto PROTECTED



Generating station, Northern Indiana Public Service Co. Supplies electric power for 229 midwest communities.
Right: Workman applies protective Abesto coating.

No small maintenance job! More than 70,000 square feet of roof on this generating plant, one of many big structures protected and maintained with

ABESTO Roof Adhesives and Coating Materials

—Check these features!—

- ✓ Retains elastic surface when cured.
- ✓ Can be used with any standard brand roll roofing, bonding layers tightly and smoothly.
- ✓ Is highly resistant to oxidation.

Specify Abesto for new built-up construction . . . for roof maintenance



ABESTO MFG. CORP.
Dept. 6, Michigan City, Indiana

Electrical Living—

(Continued from page 119)

that brings out the best features in a home are improvements that have been brought about by research beginning with Edison's first lamp.

Practical help is available from many sources in planning the most common uses of electricity in a home. The architect is well qualified to fit the electrical part of the home pattern to family needs. It is the builder's business to produce a well-built house. His knowledge of the importance of hidden details, such as electrical wiring, will prove helpful to home dwellers. Electric utilities know about all the types of electrical equipment for homes. They know how homes should be wired when built, so the best and most economical service from equipment is obtained. They can also tell what it will cost to operate different pieces of equipment, and how to get the greatest value from them. The home builder can profit by soliciting such expert advice.

Education is supplemented by the radio, labor is minimized by labor saving devices; health is safeguarded and recreation is possible at no premium price. Thus—the dreams of yesterday are realities today, made possible by the achievement of electrical science and industry.

All Aluminum G1 Red Devil GLASS CUTTER

CAN'T RUST

Sensitive to touch —light to handle—relaxing to use.

Chapmanized steel RED DEVIL wheel.

Red Devil GLASS CUTTERS

Twelve to Display Box

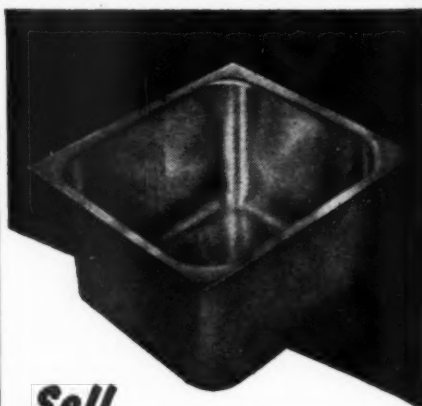
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Legion sinkbowls, made of solid stainless steel or single clad, offer many advantages.

They are seamless drawn . . . No burns, rough edges, ridges or grooves to cause corrosion or lodging of dirt . . . No leaks, more rigidity and longer life . . . Oblong, square, round or oval shapes . . . Drain holes inserted anywhere in the bottoms . . . Light in weight.

Write for catalog sheet. We will quote prices and delivery dates.



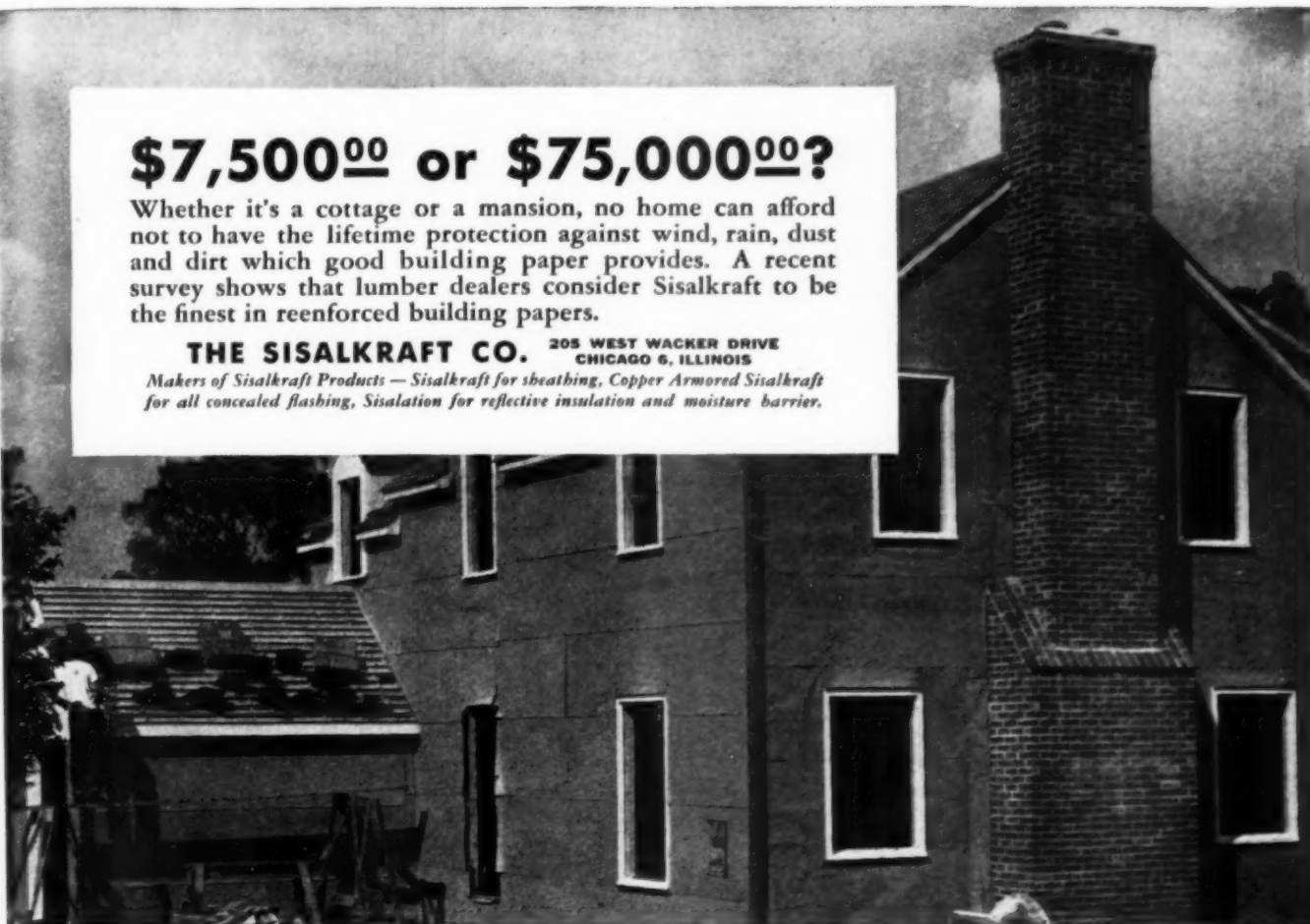
LEGION UTENSILS CO.
40th AVENUE & 21st STREET
Long Island City 1, N. Y.

\$7,500⁰⁰ or \$75,000⁰⁰?

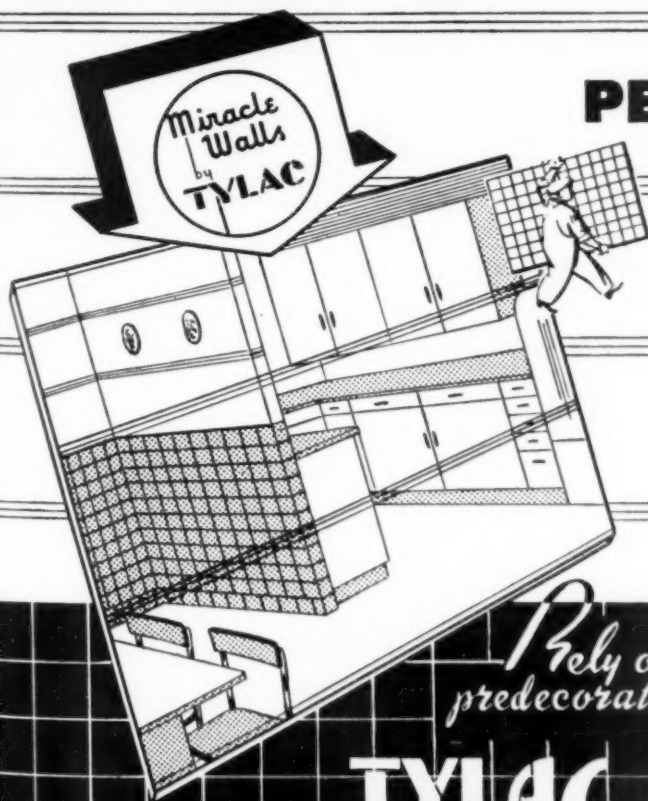
Whether it's a cottage or a mansion, no home can afford not to have the lifetime protection against wind, rain, dust and dirt which good building paper provides. A recent survey shows that lumber dealers consider Sisalkraft to be the finest in reinforced building papers.

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CHICAGO 6, ILLINOIS

Makers of Sisalkraft Products — Sisalkraft for sheathing, Copper Armored Sisalkraft for all concealed flashing, Sisalation for reflective insulation and moisture barrier.



PERMANENT BEAUTY



MIRACLE WALLS BY TYLAC provide smart, low-cost walls of lustrous, permanent beauty. Gleaming interior walls, with tile pattern, paneled, or plain effects . . . in 18 standard colors to meet every decorative need in kitchens, bathrooms, powder rooms, stores, night-clubs, and all other installations where low-cost permanent beauty is desired. TYLAC never needs refinishing—does not crack, chip, or craze—impervious to household acids, alcohol, grease, or boiling water.

Our new 1947 color chart is now ready for distribution. Write for it—today.

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TYLAC COMPANY
MONTICELLO, ILLINOIS



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FOR CREATING BEAUTIFUL INTERIORS

Your best customers and prospects see Marlite advertising in leading publications in all your major markets... today's sales messages that are building your tomorrow's business. Marsh's look-ahead policy is your best assurance of continued profits from Marlite.

Although sales of Marlite have been daily setting new records, Marsh's usually prompt, nation-wide service may be slowed by unprecedented demand. However, Marsh mouldings are immediately available and every effort is being made to bring all Marlite deliveries back to normal. Marsh Wall Products, Inc., 103 Main St., Dover, O.

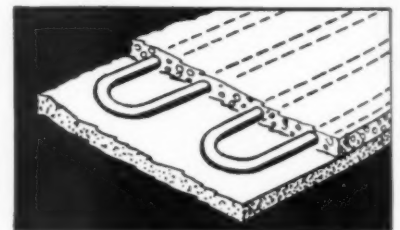


ZONOLITE INSULATING CONCRETE FLOORS



Warm, dry, permanent fire protecting floors are possible when Zonolite Insulating Concrete is used. It is adaptable for basement, ground or upper floors. Floors made from Zonolite Concrete are virtually free from dampness caused by condensation on warm, humid days. Can be placed directly on the ground. Proof against termites, vermin, rot and rodents. Ideal for basementless houses.

When *radiant heating* is specified, Zonolite Concrete is doubly important—reduces heat passage into the ground and causes the house to heat more rapidly. Pour the Zonolite Concrete floor first, then lay the heating pipes over it, and cover with a topping of ordinary concrete. The topping heats faster, warming the house sooner, more economically. Conventional flooring, asphalt tile, etc., can be placed over topping.



Other Zonolite Insulations

- **Zonolite Insulating Fill** simply pours into place. Won't irritate workers' hands, or require wearing masks. Fireproof, rotproof, verminproof. Virtually unaffected by moisture.
- **Zonolite Plaster Aggregate** used in place of sand, makes a 50% lighter-weight plaster easier to mix and work. Resists cracking; insulates against heat, cold, sound. Many times more fireproof than equal thickness of ordinary plaster.
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on remodeling jobs**



Rounding over cabinet doors with a Stanley-Carter R5A Router

You can't slight fussy trim jobs like this. But you can't make any money doing them all by hand. There's only one answer that's right for you and right for your customers... a tool that does a milling job on the job, the Stanley-Carter R5A Router. Just set the pilot tip of the rounding over bit on the edge of a cabinet door and switch on the powerful, 18,000 r.p.m. motor... the job's done in less time than it would take you to gauge and mark it. A time-saver, too, for rabbeting doors and cutting around panels or glass, leaving the much desired round corner.



Write us for complete information. Stanley Electric Tools, Stanley-Carter Sales Dept., 133 Elm Street, New Britain, Conn.

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HARDWARE · HAND TOOLS · ELECTRIC TOOLS

KOVEN

WATERFILM BOILERS

*For
Economical
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Heat*

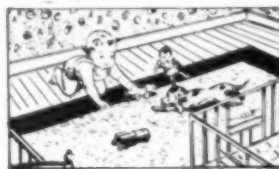


The home builder of today plans his house carefully—a vital part of those plans being the heating unit. Before installation, the advantages of a KOVEN WATERFILM BOILER deserve consideration.

The patented construction of KOVEN WATERFILM BOILERS, the fastest steaming boilers on the market, incorporates all the newest scientific improvements—assuring a plentiful supply of hot water, abundant heat and even room temperature—all at economical operating cost.

Attractively jacketed, KOVEN WATERFILM BOILERS are made for automatic firing with oil, stoker or gas and are available in a variety of models to suit small or large homes, apartment houses and

industrial plants. Write for detailed information.



*Even Room
Temperature
Throughout
The House!*

Waterfilm Boilers, Inc.

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Featured in a leaflet, this interesting and convincing story is about a Wisconsin man who remodeled his home with those versatile, workable, fine-grained woods—the Western Pines. You can have 25 copies of this leaflet FREE. Order now—specify folder No. 417.

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*Idaho White Pine *Ponderosa Pine

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Remove Wyatt, End Rent Controls, Foundation Demands

RESOLUTIONS demanding the removal of Housing Expediter Wyatt, and the taking of immediate steps to eliminate rent control and other wartime restrictions over peacetime economy were among many actions taken by the Board of Trustees, policy-making body of the National Home and Property Owners Foundation, at a meeting held in Washington, D.C., Sept. 9 and 10. The meeting was attended by 300 members from every state of the Union.

The demand for the ouster of Wyatt was based on a research report which showed that, despite optimistic claims from the Housing Expediter, only about 10 per cent of the Veterans' Housing Program has been completed although more than 30 per cent of the allotted time has passed. A survey of the Foundation also showed that the average construction time of a home has risen from three months before the war to nine months at the present time.

The Trustees' resolution states: "Mr. Wyatt has misled and confused the people by his repeated attempts to inject his public housing philosophy into the Veterans' Housing Program. He was given vast powers to solve the shortages of dwellings in accordance with the principles of free enterprise; yet Mr. Wyatt is using these same powers to advance public housing and state socialization.

"Only by removing immediately all controls that have completely choked off the flow of building materials and have discouraged the enterprise of business men can we again provide our people with the finest housing accommodations in the world. We have proven in war and in peace that there is no substitute for a free private economy. Persons who subscribe to policies which discourage this private enterprise should not be permitted to hold responsible policy-making posts in government."

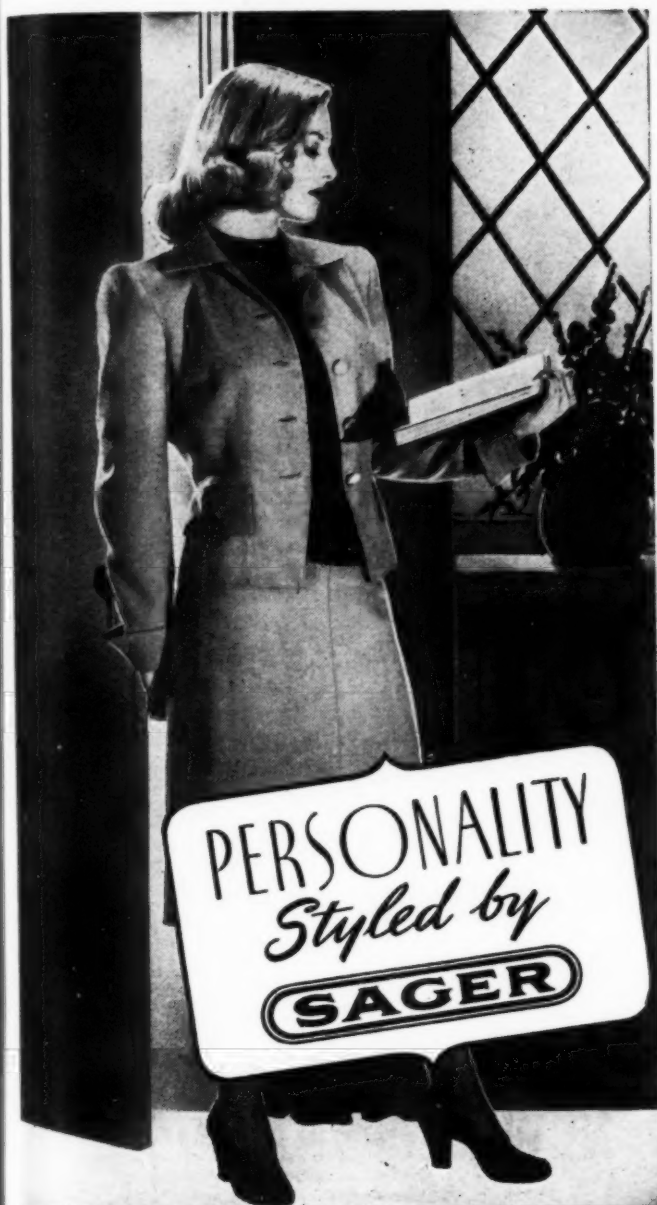
In his letter of transmittal, Arthur W. Binns, president of the Foundation, urged Mr. Truman to give sympathetic consideration to the Foundation's resolutions, since they are of "vital importance to home, farm, and other property owners throughout the nation." The Foundation's position, he explained, is "designed to combat the unfortunate trend toward centralization of government power in Washington and the socialization of property."

Another resolution sent to President Truman included a request that "immediate steps should be taken to eliminate rent control and other wartime restrictions over our peacetime economy" on the ground that rent control "has been one of the primary objectives of groups that desire to socialize our nation." It was also pointed out that the level of home construction has depended to a large extent on the income from rental that a property owner could expect. Under present conditions of rising prices, it continued, the freezing of rents was a considerable burden to owners of rental property. The research division of the Foundation submitted a report to the Trustees in which it asserted that, on the basis of official U.S. Government figures, the living costs of property owners increased as much as 100 per cent since 1940, the average being in excess of 40 per cent, whereas income from rental property rose only 5 per cent.

Enactment of a constitutional amendment to limit the national debt and limitation of government expenditures to the income provided by taxes was also asked by the Foundation's Trustees. These demands were based on the finding that continued deficit spending by the Federal Government "must inevitably result in inflation and the destruction of business confidence."

In a general policy resolution, the trustees voted for the removal of "all control from business, professions and the private lives of American citizens" and the elimination of "government competition in the field of private ownership and private enterprise."

Another resolution demanded the removal from public office of all members of the United Public Workers, a union of government employees. This was based on a determination that "this union was at the present time dominated by leftist leaders who constitute a grave danger to our system of free enterprise." The Trustees' resolution pointed out that, at its recent national convention, the UPWA went on record "as



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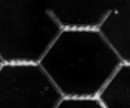
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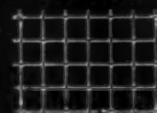
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IS YOUR ASSURANCE OF
COMPLETE SATISFACTION

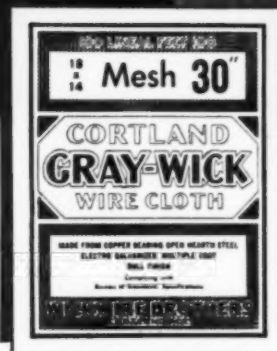
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THE FAMOUS CORTLAND LABEL

means you are getting the very best wire screening money can buy. Cortland brand wire screening is made under one rigid control, from scientific blending of the raw metals to the final inspection of the woven product. You can depend on accurate gauge wire, even mesh, strength and durability.

It is important to all our dealers to have a dependable source of supply for quality wire products. Until, however, a much higher level of production can be reached, there won't be enough wire products to supply the accumulated civilian needs.

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UNIVERSAL
LEVEL-TRANSIT



RUGGED
ACCURATE
DEPENDABLE

Truly the finest in accuracy and dependability, the Universal Level-Transit is smoothly converted from a precision level to a highly accurate transit in 2 easy motions. A practical all-around builders' instrument.

Patented ball-bearing race assures perfect adjustment under the severest conditions. Telescope 12" long, 25 power, horizontal circle 4½" with Vernier to 5 minutes. Price, \$150.00

EXTRAS—MODEL 3000
Detachable compass..\$13.75
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317 West Court St., Milwaukee 12, Wis.

denouncing the government of the United States for what it called imperialism and for aggression, while at the same time praising the Soviet Union."

The Foundation has for the past six months been in process of organization, and has been setting up research and fact-finding facilities. The basic organization is now complete and a concerted drive for members among home and property owners and others interested in the preservation of the traditional free private enterprise economy is under way. A public education program is complete with radio broadcasts, newspaper releases and sample speeches for local service clubs, veterans' societies and other community organizations. The main office of the Foundation, under the direction of Henry E. Price, executive director and counsel, is located at 1731 K Street, Washington 6, D.C.

* * *

Celotex Buys Plant at Madison, Ill.

THE Celotex Corp. of Chicago has purchased and plans to put into full operation the asphalt roofing plant located at Madison, Ill., formerly operated by the Barber Asphalt Co.

In addition to the Madison plant, Celotex recently acquired the Weaver-Wall asphalt roofing and siding plant at Cleveland and the felt mill at Avery, Ohio.

* * *

New West Coast Manager for Insulux

RAYMOND G. BECKLEY, veteran sales representative for the Insulux Products Division of Owens-Illinois Glass Co., has been appointed Pacific Coast manager of the division which manufactures glass construction block. His headquarters will be in Los Angeles.

A member of the sales staff which introduced Insulux glass block in the United States, Mr. Beckley has been associated with the company eleven years. Before going to the Pacific Coast, he was western field manager in charge of glass block sales in 22 midwestern states.

* * *

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NEW INTERNATIONAL DUMP TRUCKS

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MODEL K8F
361" ENGINE
6x9 DUMP BODY
TEN 8.25x20 TIRES
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6x6 MODELS ORIGINALLY
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Check these features

Overall Width 48 inches. Assembled on 2 1/2 inch diameter steel pole. Six feet high, after being set 3 feet in concrete. Three 65 foot strands of six wire, steel cable wound on stamped steel.

All aluminum castings. Disengaging handle at 4 height for easy rewinding.

With more new homes under construction and more new washing machines on order than ever before in American history, the revolutionary Reel-Line Disappearing Clothesline opens a tremendous new market . . . representing a natural companion item. Our intensive research, recently conducted with pilot models, revealed 9 out of 10 housewives to be "live" prospects. Get the real facts about the Reel-Line Disappearing Clothesline; the line that eases wash-day drudgery; keeps backyards clear of unsightly obstructions. Get set to sell Reel-Line Disappearing Clotheslines.



Sold Through DISTRIBUTORS, JOBBERS and WHOLESALERS. Send for descriptive folder giving full specifications and discounts.

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THE SWITCH is to

Blo-Fan

CEILING VENTILATORS

MORE and more, the tendency is toward ceiling ventilators—Blo-Fans! For even a school boy knows that warm air *naturally* rises. Installed directly over the source of greasy cooking vapors and other unwanted air, Blo-Fans take advantage of this law of nature. Furthermore, Blo-Fans do a better job than any other fan of similar size because they combine the principles of both fan and blower . . . For more efficient home ventilation, install Blo-Fans in kitchens, dens, laundries, bathrooms.

Distributed by Leading Electrical Wholesalers



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PORTABLE POWER TOOLS

BUILD low-cost homes faster and make a greater profit for yourself by using Mall Portable Power Tools. They make critical man-hours and costly materials count for more homes by saving time, labor and material. Their power and stamina speed construction . . . their ease of operation simplifies building processes . . . their accuracy eliminates waste. Fewer men building more and better homes faster cut the cost for you and the veteran . . . make G. I. housing profitable as well as patriotic.

MallSaw—is fast and accurate . . . facilitates multiple cutting of like members . . . notches rafters . . . trims floor and roof decking . . . puts construction on a production basis. Scrap and excess board ends can be salvaged for use in concrete form construction. 4 powerful models with 2", 2 1/4", 2 7/8" and 4 1/2" cutting capacities.

MallDrill—1/2" is power-packed to drill wood, metal and plastics . . . is compactly designed to get into cramped quarters and difficult drilling positions. . . . Drills 1" holes in concrete form boards for ties and clamps. Also 1/4", 5/8", and 3/4" capacities.

Mall Concrete Vibrator—1 1/2 to 3 H.P. places a stiffer mix concrete five times faster than hand puddling . . . insuring greater strength and density . . . affording better bonding strength . . . eliminating voids and honeycombs. Variable speed Gasoline Engine operates 8 other construction tools.

Ask your Distributor or write Power Tool Division.

MALL TOOL COMPANY

7737 South Chicago Ave.

Chicago 19, Illinois

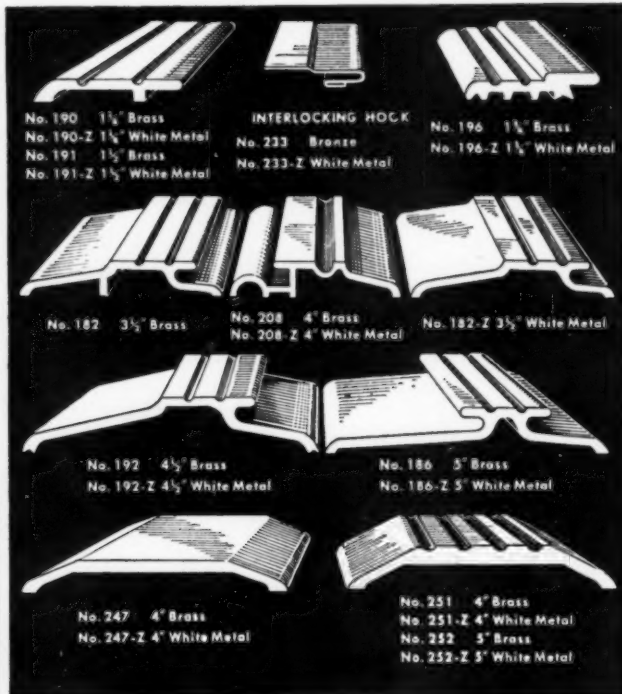
★ 25 Years of "Better Tools For Better Work"

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PORTABLE
POWER TOOLS

ALLMETAL WEATHERSTRIP BRASS AND WHITE METAL THRESHOLDS

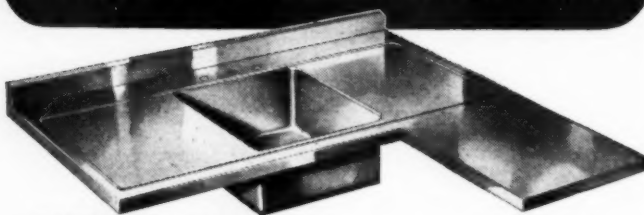
Efficient weather protection and wide selection to meet individual conditions are provided by the extruded metal weatherstrip shapes illustrated herein. Each shape is available in either brass or white metal.



These shapes are cut to size required, drilled and countersunk. Screws are furnished. Interlocking shapes are provided with an appropriate hook for installing on bottom of door. Write for prices and catalogue of complete weatherstrip line.

ALLMETAL WEATHERSTRIP CO., 2243 North Knox Ave., Chicago 29, Ill.

Radiiluxe means New Beauty and Efficiency in STAINLESS STEEL CABINET SINKS



- DOUBLE-PITCH DRAINBOARDS
- IN-BUILT ANTI-SPLASH RIM ON BOWLS

These latest Just Line developments provide beauty and utility in keeping with today's modern kitchens. Double-Pitch Drainboards give smooth, complete drainage—no channels to clean—no grooves to endanger fine glassware. A smooth, effective Anti-Splash Rim extends around entire perimeter of bowl.

NEW FREE BULLETIN describes Radiiluxe Sinks with single or double bowls, with or without drainboards; straight, "U" or "L" types... standard sizes or custom-fabricated to your specifications. Also stainless steel counter and cabinet tops. Write today.



Stainless Steel
CABINET SINKS
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SCULLERY SINKS
SINK BOWLS
TOILET SHELVES
LAVATORIES
STRADDLE STANDS
and Special Units

Just Manufacturing Co.
4610-20 W. 21st Street, Chicago 50, Illinois

Paints—Varnishes—

(Continued from page 120)

and color treatments have further whetted the public's appetite for more of these liquids that transform otherwise drab surroundings into a warm, eye-appealing environment.

All the classifications of the paint and varnish industry have undergone revolutionary changes in the past two decades. New and varied uses are made of the many varieties of paint on the market today. Porcelain enamels with permanent weather and acid resistance, vermin-proof and fire resistant; penetrating finishes for roof shingles that seal out moisture and resist mildew; paints that seal, prime and finish in one coat that do not crack or scale and expand and contract with the painted surfaces as temperatures change; sunproof and waterproof paint.

Of comparable interest with the technological advancement is the strong trend towards an enlightened use of color, particularly in industrial plants, offices and commercial establishments. Industry is firmly convinced that through properly selected colors, seeing conditions can be improved and productive output increased accordingly. This greatly increases the responsibility of the paint contractor for this modern trend toward "color with a purpose" and requires new knowledge and new techniques.

The magic of color and the transformation of attractive finish can be utilized in these days of material restrictions to save the day for home exteriors and interior room treatments. Tens of thousands of homes have grown shabby during the war years. The industry's early slogan, "Save the surface and you save all," was never more true than it is today.

As outmoded as the old mill stone grinder are the "varnishes" of yesterday. The transition of the paint industry from one of mixing or blending to a highly specialized branch of the chemical industry finds it on the threshold of new opportunities for improved products. The modern method of manufacturing and the additional uses to which it has been applied are a real mark in scientific achievement.



Your Clients will Appreciate a Convertible Bedroom

Here's an idea that's really geared to these times. A convertible bedroom! Modernfold, the accordion-type door, makes it possible for you to specify a room that can be easily converted into two smaller ones. It's all done simply and quickly by merely closing this fabric-covered metal-framed door. Then, too, Modernfold means elimination of swing area... savings in wall and floor space... and is so beautiful in appearance that it is always a source of pride to its owners.

Write for full details... and see how Modernfold meets today's requirements in bedrooms, living rooms, kitchens, closets, etc.



NEW CASTLE PRODUCTS
New Castle, Indiana

Dealers in all principal cities in the United States and many foreign countries



**In Less Time
Than You Can
Start a Fire**

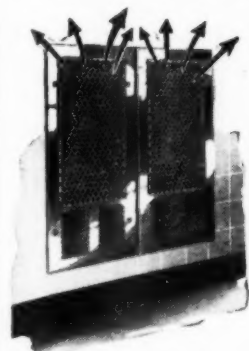
ELECTRIC QUIKHETER

HAS DONE ITS JOB!

A simple flip of the wall switch of the new and improved Built-in Quikheter is all that is needed to start a flood of warm air circulating throughout the room.

Designed to provide extra heat for those uncomfortably cool days when the regular heating system is off, these attractive, easy-to-install, fuel-saving units will raise the temperature in the average room in less time than it takes to start a fire . . . three to five minutes to be exact.

Consult your contractor for complete details or send for our free Quikheter Bulletin.



Available in 1000 to 1500 watt capacities, single or 2000 and 3000 watts, double. Control switches can be placed anywhere for your convenience.

Frank Adam
ELECTRIC COMPANY
ST. LOUIS



Investigate Lucke Before You Build or Modernize BATHROOMS

Eliminate Maintenance costs, even a hair crack will not give way to a leak.

Lucke Means Permanence

Its installation is the only expense.

Pays Dividends in expense free Bath tub installations.

NOW AVAILABLE

Manufactured By

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WILMETTE

ILLINOIS

Now Available!

Your profits and prestige are assured when you erect P&H Pre-Assembled Homes. These comfortable, attractive homes are the result of eleven years' experience in the building of Pre-Assembled Homes.

Distinctly different styles and exterior finishes are available, allowing variety in development. Acceptable for FHA financing. Write for further details.

This attractive development shows variety of styles of P&H Pre-Assembled Homes.

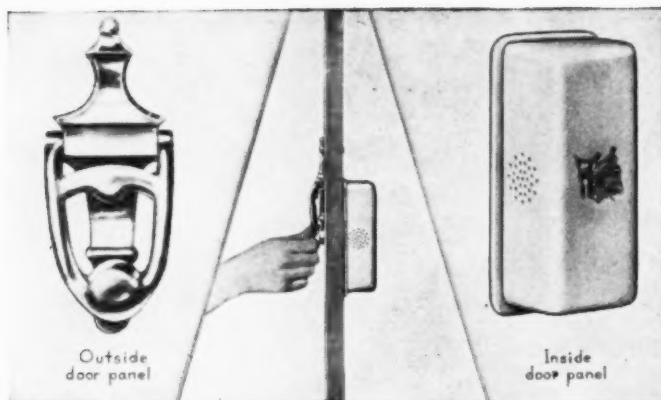


The Model WH-2, one of many models offered by P&H Pre-Assembled Homes.

Now available for residential developments in: Wisconsin, Illinois, Indiana, Ohio, Michigan, Minnesota, Iowa.

P&H
PRE-ASSEMBLED HOMES
300 Spring Street
Port Washington, Wisconsin
HARNISCHFEGER CORPORATION
EXCAVATORS - ELECTRIC CRANES - ARC WELDERS - HOISTS - WELDING ELECTRODES - MOTORS





AUTHOTONE CHIMES

ARE IDEAL FOR ALL HOUSING

Because they're mechanically operated and trouble-free. The builder saves cost of wiring and electrical accessories.

Because it's now so easy for builders to offer the extra beauty of musical door chimes.

Because the AuthOtone "Suburban" bar chimes and "Mayfair" cathedral chimes are the only chimes that combine the traditional beauty of a solid brass door knocker with the new beauty of melodious chimes. Because the AuthOtone line is complete. Send for Bulletin 110.

AUTH ELECTRIC COMPANY, INC.

34-20 45th STREET



LONG ISLAND CITY 1, N. Y.

Offices in

Principal Cities

SINCE 1892

For Greater FIREPLACE EFFICIENCY

Majestic FORMED STEEL* Dampers

*FORMED STEEL

The heavy-gauge formed steel units developed by Majestic to meet war-vital needs proved the advantages of this advanced construction—which is now featured on the regular Majestic line, including Circulator Fireplace Units, Underground Garbage Receivers, Home Incinerators.

Rugged and Long-Lasting

Fireplace construction and modernizing are simplified by using Majestic Formed Steel Dampers. They maintain proper ratio of throat area to fireplace opening; assure correct height of throat and other dimensions. Built-on lintel—no angle iron required. No fitting necessary; damper rests flat on rough masonry. Valve closes tightly, and operates easily with an ingeniously simplified poker control. Built to get highest efficiency from every fireplace, Majestic dampers also withstand years of exposure to rust, smoke, soot, and heat without impairment. For safe draft control and permanent, smoke-free satisfaction, install Majestic Formed Steel Dampers.

Nationally Known and Advertised for 40 years

The
Majestic Co.
1114 ERIE STREET
HUNTINGTON, IND.

Successful Market Development Cited In Ponderosa Pine Coast Meeting

THE continuing success of Ponderosa Pine Woodwork's long range program of market development was cited by E. J. Curtis, president of the association, at a meeting held in San Francisco August 16. The meeting was attended by thirty-four members and an almost equal number of guests.

Mr. Curtis stated that, while the woodwork industry recognized the extreme difficulties in the way of manpower shortages, etc., existing in the lumber manufacturing region, he felt sure that general conditions would improve and, barring the continuation of the acute car shortage, would continue to improve throughout the year. He stressed the point that without lumber the woodwork industry could not make woodwork, and if woodwork were not available in reasonable quantities, it would suffer a temporary, if not permanent, loss to substitutes. He cited the fact that fewer doors and windows had been made the first six months of this year than last year, when the industry was not supposed to have been making any, except for war purposes, and also that the production this year to date was 50 per cent less than for the corresponding period in 1941 or even in the years 1925, 1926 and 1927.

The marked growth in Ponderosa Pine Woodwork membership was also pointed out as evidence that the industries are giving full support to the Association's program. Ponderosa Pine Woodwork is unique among trade associations in that its membership includes most of the leading stock woodwork manufacturers and lumber producers, who cooperate in a promotional effort to protect and expand the market for doors, windows and frames.

R. M. Bodkin, general manager of Ponderosa Pine Woodwork, reviewed the history and background of the Association with particular reference to its continuous and forceful promotional efforts during the war years. Mr. Bodkin expressed confidence that the association plans would be of great assistance in dealing with increased postwar competition from substitute materials.

(Continued to page 188)

BASEMENT WALLS—AND HOW TO WATERPROOF 'EM



PROBLEM A: Dampness seeping through porous masonry surfaces like stone, concrete, cement or cinder block.

SOLUTION: Apply two coats of Bondex Waterproof Cement Paint in white or color. This product seals the tiny cracks and pores that let moisture in.



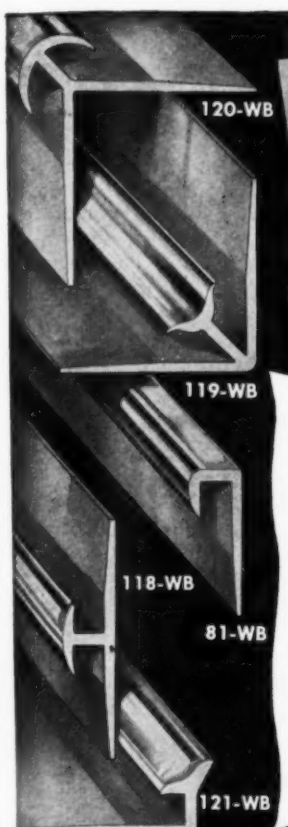
PROBLEM B: Water trickling through mortar joints, wall and floorline cracks, during and after rains.

SOLUTION: Bondex Hydraulic Waterproofing should be applied to leak points. This product plugs such leaks and sets in four hours. Finish with coat of Bondex Paint.



Want Ideas for Exterior Color Schemes?

Send for New Color Chart on Bondex Waterproof Cement Paint. Address The Reardon Company, 2208 N. 2nd, St. Louis 6, Mo



Another
CHROMEDGE*
Advantage
Chromalite
the soft-toned finish
of tough, lasting beauty!

Exclusive advantages of CHROMEDGE METAL TRIMS extend from production to final use. They bring you the finest designs for use with all floor and wall materials, plus installation ease, lasting protection, and permanent beauty. The rich, velvety luster of B & T's CHROMALITE finish provides a superb sheen that *never rubs off black* . . . stays neat and new-looking—even after long, hard service! (CHROMEDGE trims are available also in standard bright finish.) Write for details.

CHROMALITE—proved in wartime use on army-navy equipment—is fully resistant to heat, cold, moisture, abrasion, and salt-spray.

A typical group of accurately matched Chromedge sections.

* Extruded aluminum alloy and stainless steel trims.

The B & T Metals Co.
Columbus 16, Ohio

VENT-A-HOOD

THE MODERN KITCHEN VENTILATOR



Designed and engineered to fill a long felt need for an efficient, easy to clean, and a beautiful kitchen ventilator.

Patented exhaust unit and grease trap—utility light—large splash panel protects wall—white baked enamel finish—all chrome trim.

VENT-A-HOOD COMPANY Plantation Drive and Hines Blvd.
DALLAS 1, TEXAS

Builders...
THIS PUMP CAN HELP YOU

LOWER CONSTRUCTION COSTS!

Marlow "Water Wizard" Model 12

This rugged little pump can save you money on nearly every construction job. Use it to dry excavations, feed mixers, supply water. A Marlow Model 12 easily handles 3,000 gallons per hour and pumps up to 15,000 gallons on one gallon of fuel. It is made to last for years—you can't beat a Marlow for strength.



Light and Compact

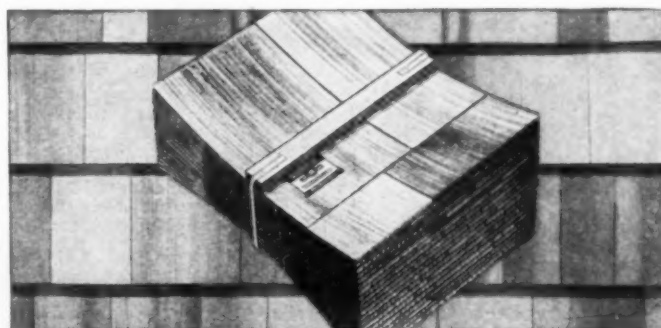
A Marlow Model 12 weighs only 70 lbs. in aluminum; 88 lbs. in iron, complete with dependable Briggs & Stratton 4-cycle engine. It's so light and compact you can take it practically anywhere. Other "Water Wizards" are made up to 10-inches, capacities to 240,000 gallons per hour. They are fully guaranteed and have thousands of enthusiastic users. Send today for bulletin and name of nearest distributor.

Self-Priming

Priming is positive and automatic on suction lifts up to 25 feet. There's no recirculation or wasted motion. The Marlow has no ports, valves or by-passes to clog or jam. And there is nothing to manipulate—just start the engine and action starts.

Marlow Pumps Dept. B10,
RIDGEWOOD, N. J.

Manufacturers of the World's largest Line of Self-Priming Centrifugal Pumps



It's Certigrade Over-Roofing Time

Right over the old roof is best—the result is double insulation against heat transmission.

Further, mess and litter on lawns and shrubs is avoided, plus the advantage of protection from sudden storms during application.

Over-Roofing is Simple and Easy

Send for free Over-Roofing blueprint which gives details.

RED CEDAR SHINGLE BUREAU

5508 White Building • Seattle 1, Wash., U.S.A.
or Vancouver, B. C., Canada



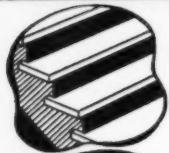
Red Cedar SHINGLES

SOLD BY RETAIL LUMBER DEALERS

Speed & Quality

A FINISHING SANDER

NOT A DISC OR BELT SANDER

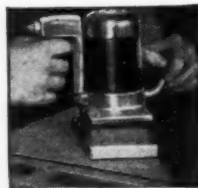
SANDING
STAIR TREADSSANDING
BASE BOARD
AND TRIMSANDING
MANTELS
AND SHELVESSANDING
PLASTER
PATCHESSANDING
DOORS
WINDOWS
CABINETS

Easy

RECIPROCATING ELECTRIC SANDER

Easy has straight line, back and forth action. No swirls, laps or gouges. A better job on CURVED or flat, WET or dry work, sanding, rubbing, polishing, in one-third the time.

Write today or see your jobber.



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(Continued from page 186)

T. L. O'Gara, chairman of the advertising committee, explained the policy behind the current advertising and promotional plans of Ponderosa Pine Woodwork.

Speaking as a large jobber and retailer, as well as a manufacturer, Frank Stevens, director and officer of Ponderosa Pine Woodwork, emphasized the necessity of protecting and maintaining traditional markets for woodwork. As evidence of this, he pointed out that despite reluctance of jobbers and dealers to stock competitive materials, many of them would do so. Increased selling effort by producers will be the determining factor in winning this long-range battle of competition for the woodworking industry.

* * *

Appley Produces 1,000th Block Making Machine

LAST month the one-thousandth Little Giant block making machine was produced by the J. W. Appley Machine Shop, St. Petersburg, Fla. Since 1935, when the first machine was built for smaller block plants, the device has enjoyed universal popularity. Three years ago J. W. Appley retired from active participation in the business and has been succeeded by his son, J. E. Appley, who has continued to maintain the high standards that have made the Little Giant outstanding.

* * *

Galanot Products Takes Over Manufacture of Thermo-Lite

THE Galanot Products Co., Alliance, Ohio, has taken over the manufacture and distribution of Thermo-Lite fireplace fixtures formerly manufactured by the Merryweather Products Co., Akron, Ohio.

J. J. Blockinger and the production organization for Thermo-Lite were taken over by the Galanot Company and Mr. Blockinger will act as sales manager for them. According to the announcement there will be no immediate change in prices, merchandising or manufacturing methods.

Just fold it away
for
Transporting
or Storage



THIS NEW

FOLD-HORSE

(Patented)

—folds down to the size of 8" x 9" x 42" for convenient transporting to and from the job.

The Fold-Horse is the sturdiest saw-horse you can get for all purposes.

The Fold-Horse is the handiest saw-horse you can have—it fits into any corner or out-of-the-way place when not in use.

• Metal parts — cadmium plated, 14 gauge steel.

• Top 2" x 6" x 42" clear, white pine.

• Equipped with 9" x 36" tool tray.

• Easy to assemble and knock down.

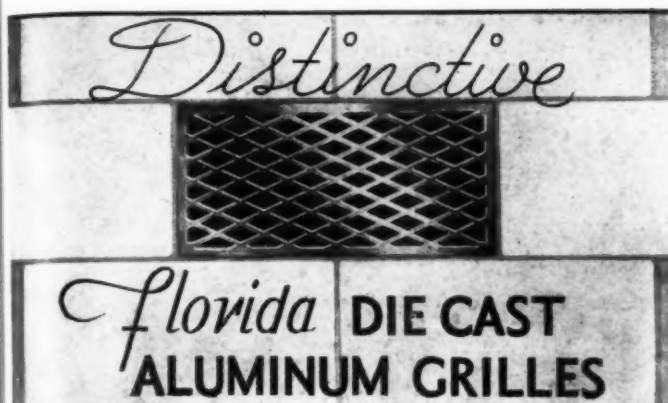
Write for complete data and prices today!

A few select jobber territories still open.

UNIQUE TOOL PRODUCTS CO.

4639 NORTH CLARK STREET

CHICAGO 40, ILLINOIS

e, ex-
pro-manu-
lerosa
g and
dence
s and
uld do
deter-
ompe-making
achine
t ma-
as en-
Appley
s been
ued to
Giantn over
eplace
Prod-Ther-
nd Mr.
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nge in

Permanent under-eave ventilation and foundation cooling, so essential in good building construction, are provided by Florida Die-Cast aluminum grilles.

You get *guaranteed air circulation* when you install aluminum grilles. Dampness that breeds termites is eliminated and you insure your building against other forms of vermin that lodge in unprotected apertures.

Florida Die-Cast grilles are *permanent*. No corrosion or rusting is possible.

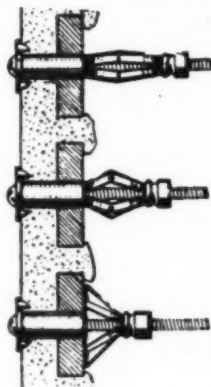
And, of course, the neat appearance of aluminum grilles gives added distinction to any building.

Your building supply or hardware dealer will be glad to give you full details, prices.

FLORIDA DIE CASTING FOUNDRY
PHONE 2-1838 • ORLANDO, FLORIDA



Let MOLLY SCREW ANCHORS make installation of wall fixtures and accessories *easy, positive and inexpensive*.



Easy for anyone to install . . . neatly . . . in any wall material from concrete to thin fiber-board. Threaded anchor will not loosen or drop when bolt is removed any number of times to clean or replace wall fixtures.

ASK YOUR BUILDING SUPPLY OR
HARDWARE DEALER

MOLLY CORPORATION

Sales Headquarters
2-260 GENERAL MOTORS BLDG.
DETROIT 2, MICH.

122 E. 42ND ST.
NEW YORK 17, N. Y.

CO.
ILLINOIS

WAGNER DOOR HANGERS

AND
TRACKS

FOR
INDUSTRIAL
USE!

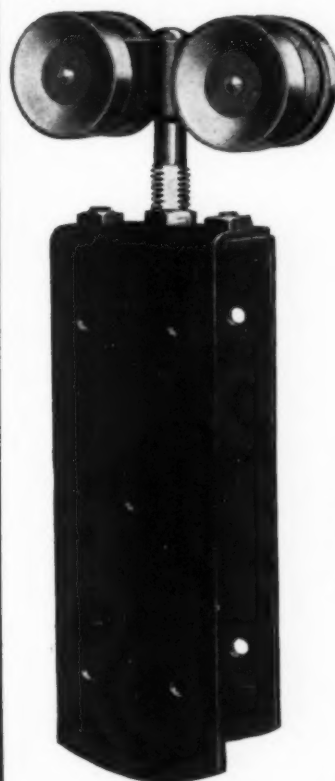
★
HEAVY
DUTY



Can be furnished with Ball Bearing, Roller Bearing or Hyatt Roller Bearing Trolley for doors up to 1,000 lbs.—2 1/4" - 3 1/2" thick.

WAGNER HANGERS
also available for doors up to 2,000 lbs.

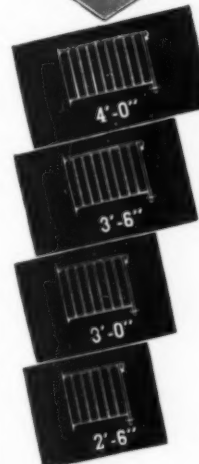
**WAGNER
MANUFACTURING
COMPANY**
Dept. AM-1046
CEDAR FALLS, IOWA



Save Almost 1/2



POPULAR
SIZES



**NOW
YOU
CAN**

**SELL ENTRANCE
RAILS FROM STOCK**

Use Logan STOK-RAILS (Shipment from stock) and SAVE NEARLY 50%! Standard material, height and black paint. Low prices due to volume production—no compromise on quality. Order from your dealer, or write Logan Co., Inc., 420 Buchanan, Louisville 6, Ky.

Logan STOK-RAILS



All popular finishes—made of steel, aluminum, brass and bronze. Cast or stamped handles. List price \$10.50 per doz. up.

A STEADY SELLER!

Ideal ONE BORE *Latch*

Easily installed on Storm, Screen, Attic, Basement, Brooder House, Cabin, Cottage, Apartment and Garage service doors

THESE FEATURES MAKE REPEAT SALES FOR YOU!

- EASY INSTALLATION . . . just bore one 1" hole and insert 6 screws
- TROUBLE-FREE . . . positive locking
- AUTOMATIC PUSH-PULL action
- ADJUSTABLE . . . fits 1 1/8" to 1 3/8" doors
- STRONG HANDLES . . . will not bend

Sold Only Through Hardware Distributors
"Satisfaction Guaranteed"

Ideal Brass Works
250 E. 5th STREET
ST. PAUL 1, MINN.

Manufacturers of Builders Hardware Specialties, such as Ideal Screen Door Latches, Barn Door Latches, Storm Sash Adjusters, Screen Door Hinges, Casement Sash Friction Stays and Other Popular Items.



Advertisements in national magazines have already told the amazing story of Cotton Insulation to more than 7,000,000 home owners and prospective builders this year. Cotton Insulation is ready now—ready for you to sell now!

The 38-page booklet "Cotton Insulation" tells why home owners by the thousands are specifying this flame-proof, lighter, more efficient insulation. Write for your copy now. Address National Cotton Council, Box 18, Dept. F, Memphis 1, Tennessee.

**NATIONAL COTTON COUNCIL
COTTON INSULATION ASSOCIATION**

Insulation Institute Quiz Program

CHICAGO and New York teams representing the Insulation Board Institute matched wits Aug. 25 on the radio program "Quiz of Two Cities."



ON the winning New York team, which answered every question, were Bud Collyer, quiz master; Allan Douglass, National Gypsum Co.; J. Z. Hollman, Flintkote; James V. Jones, Armstrong; and W. W. Cullin, Johns-Manville.



THE Chicago team consisted of J. B. Blackburn, Insulation Board Institute; Kenneth Rolf, Insulite; E. C. Reutenberg, Celotex Corp.; Holland Engle, quiz master; and Phil Berquist, Wood Conversion Co.



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REG. U.S. PAT. OFF.

—the most durable material for hanging windows

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HEAT?

JOHNSON OIL BURNERS
can meet every heating need. There's a size and a model exactly right for low-cost, efficient heating of anything from a hotel to a cottage . . . from a great public institution to a baker's oven. If you want dependable heat and smaller fuel bills get Johnson Burners. Ask your Heating Engineer and see your local dealer. Or write us direct.



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S. T. JOHNSON CO.
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Modern CABINET HARDWARE



ATTRACTIVELY PACKAGED for Quick, Profitable Sales

- ★ **SAVES TIME**—Envelope packing permits better service to your customers. Envelopes and cartons are clearly marked for easy identification.
- ★ **SAVES SPACE**—Cartons are of uniform size, requiring a minimum of shelf space. One dozen items packed in a carton.
- ★ **PREVENTS LOSS OF SMALL PARTS**—Envelope packing assures customer that all parts and screws required for installation are there when needed.
- ★ **PROTECTS FINISH**—Plated surfaces cannot become scratched — Envelope packing gives full protection.

There are four complete matched sets to choose from — designed and priced for any style home, large or small. Best of all, it's a profitable line for you to sell!

NATIONAL LOCK COMPANY
Cabinet Hardware Division Rockford, Illinois

WHAT IS THE LASTING POWER OF YOUR CONSTRUCTION

AGAINST DECAY-MOLD-TERMITES? WARPING-SHRINKING?

**WOOD
TOX**

**WOOD
FIX**

**TERRA
TOX**

WOODTOX prevents decay, termite infestation, and minimizes warping, swelling, and shrinking. Particularly recommended for protective treatment of all wood work exposed to the elements. Improves painting qualities of wood.

WOODFIX is successfully used for protecting interior wood work against warping, shrinking, checking and grain raising. Ideally suited for wood cabinet work, mouldings, panelling, etc. Leaves wood paintable.

Oil soluble **TERRATOX** is highly recommended for effective treatment in control of decay and termites in timbers already in place. Contains 5% Pentachlorophenol solution, when mixed according to directions.

SEND FOR INFORMATIVE BULLETIN,
"WOOD TREATING CHEMICALS."

WOOD TREATING
Chemicals Co.
5137 Southwest Ave.
St. Louis 10, Mo.

SANDER

FAST
PORTABLE
ELECTRIC
•
FOR
BUILDERS
CARPENTERS
PAINTERS
&
CONSTRUCTION
MEN



Use the Sterling Sander for all types of jobs on wood, metal and plastics. Excellent for sanding dry wall construction, undercoats, primers and finished coats of paint. The Sterling 1000 is many times faster than hand sanding . . . it's simple to operate, vibrationless, light weight.

Write for descriptive folder now! Sterling Tool Products Co., 370 East Ohio Street, Chicago 11, Illinois.



STERLING 1000
SANDER
PORTABLE ELECTRIC



2 OUT OF 3
ARE EAGER
PROSPECTS FOR
Sav-U-time
TOUCH BUTTON
CONTROL FOR GAS
WATER HEATERS

Where can you find a market so unsaturated. Every home owner who uses a side arm gas water heater (and 2 out of 3 have them) can use and will buy a **Sav-U-time** once you tell him about it. A **Sav-U-time** gives all the advantages of automatic hot water with gas savings up to 50%—touch button control from bathroom, kitchen and laundry turns on the gas water heater providing hot water quickly, economically and just when needed.

Low Cost and 100% Profit for You
Sav-U-time is priced at \$39.50 plus a small installation charge—and there's a 100% for you. Low enough price to make sales easy and high enough profit to make it well worth while for you.

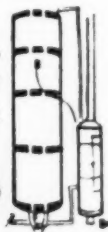
Territory Open for Dealers

Here is a wanted product with immediate deliveries being made. Dealers in St. Louis, Detroit and Philadelphia are ordering and reordering. Some territories are still available for dealerships. National advertising, dealer helps support you. Write or wire for details now.

SAV-U-TIME SALES CO.

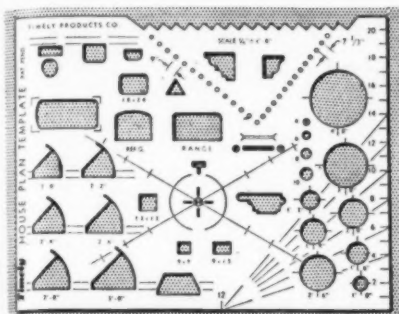
3106 MANHATTAN STREET
ROCHESTER 2, NEW YORK

Sav-U-time



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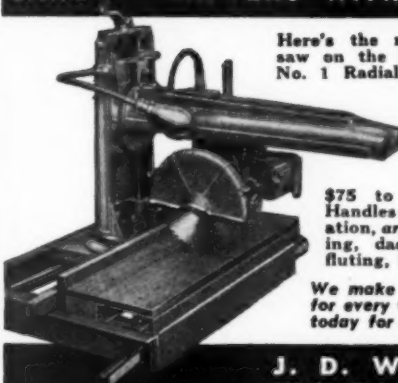
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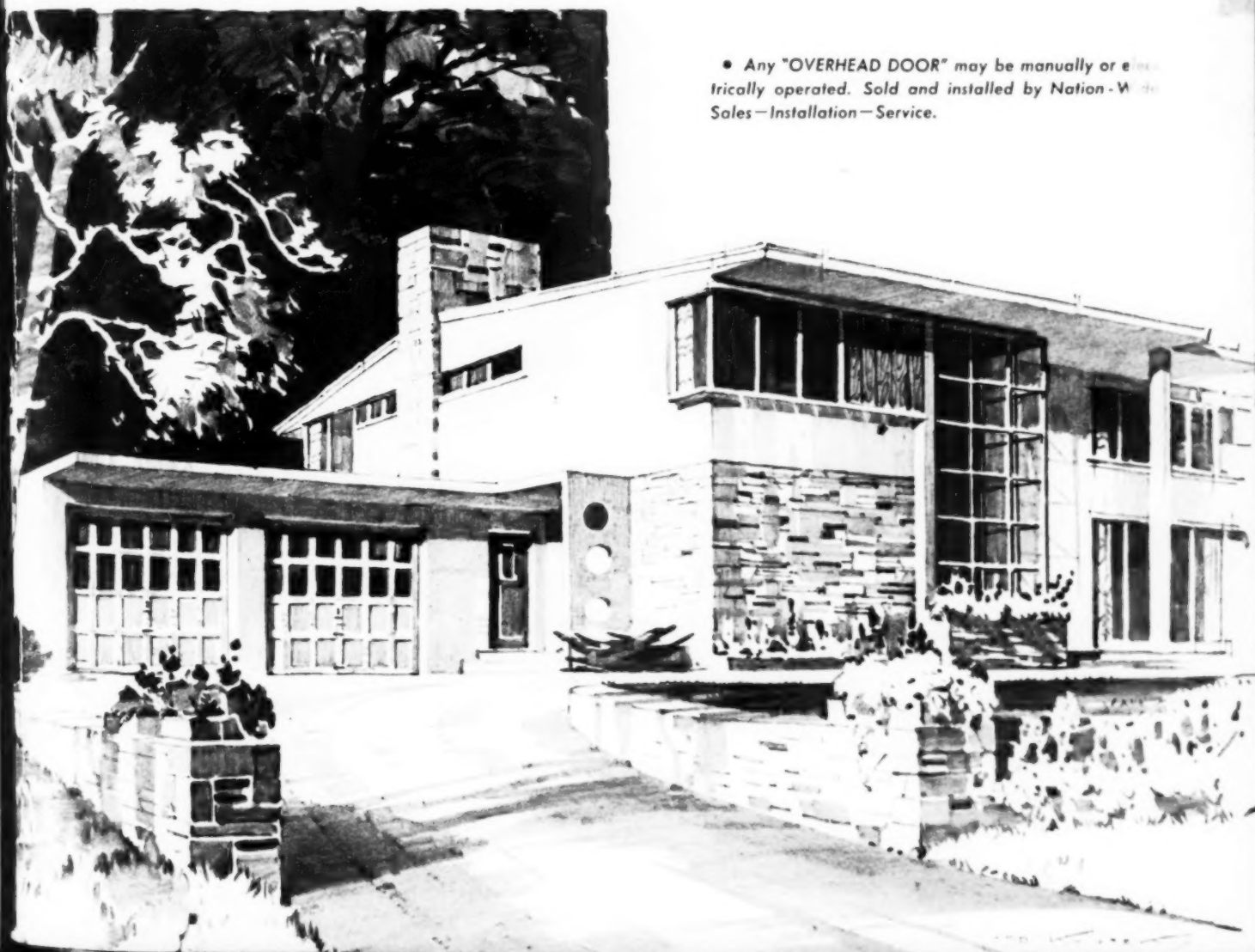
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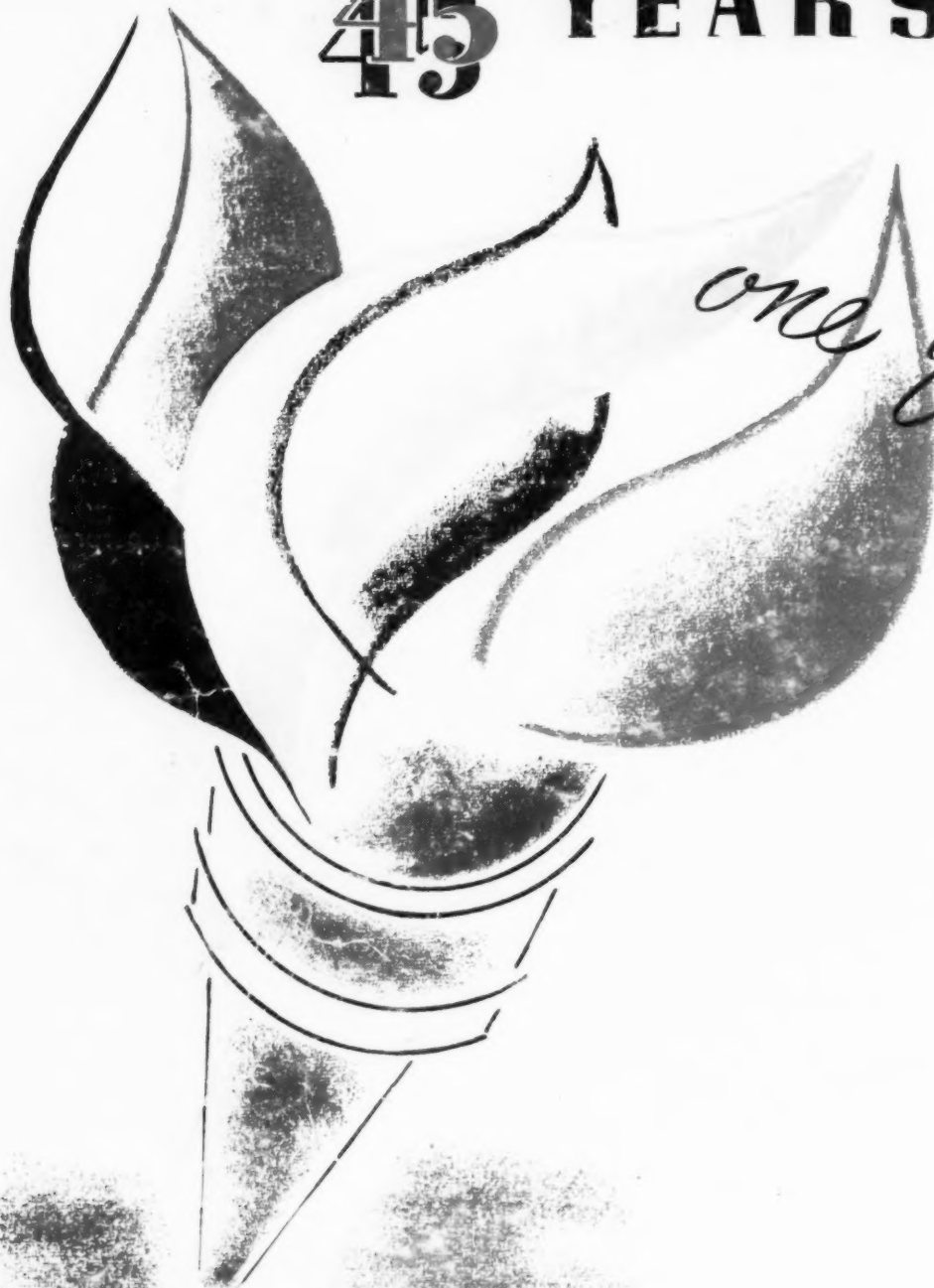
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